Metal Music as Critical Dystopia:
Humans, Technology and the Future in 1990s Science Fiction Metal

Laura Taylor

Department of Communications, Popular Culture and Film

Submitted in partial fulfillment

of the requirements for the degree of

Interdisciplinary MA in Popular Culture

Faculty of Social Sciences and Faculty of Humanities, Brock University

St. Catharines, Ontario

Abstract

Metal Music as Critical Dystopia: Humans, Technology and the Future in 1990s Science Fiction Metal seeks to demonstrate that the dystopian elements in metal music are not merely or necessarily a sonic celebration of disaster. Rather, metal music's fascination with dystopian imagery is often critical in intent, borrowing themes and imagery from other literary and cinematic traditions in an effort to express a form of social commentary. The artists and musical works examined in this thesis maintain strong ties with the science fiction genre, in particular, and turn to science fiction conventions in order to examine the long-term implications of humanity's complex relationship with advanced technology. Situating metal's engagements with science fiction in relation to a broader practice of blending science fiction and popular music and to the technophobic tradition in writing and film, this thesis analyzes the works of two science fiction metal bands, Voïvod and Fear Factory, and provides close readings of four futuristic albums from the mid to late 1990s that address humanity's relationship with advanced technology in musical and visual imagery as well as lyrics. These recorded texts, described here as *cyber metal* for their preoccupation with technology in subject matter and in sound, represent prime examples of the critical dystopia in metal music. While these albums identify contemporary problems as the root of devastation yet to come, their musical narratives leave room for the possibility of hope, allowing for the chance that dystopia is not our inevitable future.

Dedication

To the memory of Denis (Piggy) D'Amour
and Asbestos, the large white cat

Table of Contents

Introduction: Approaching the Study of Science Fiction Metal

Metal music is a genre of contradictions. Incurring fanatical appreciation and virulent attack, encompassing chart-topping hits and underground obscurity, expressing graphic brutality and intellectual interrogation, metal is home to a diverse collection of forms, messages, audiences and intents—characterized, at the most rudimentary level, by loud, distorted guitars; wailing or growled vocals; a powerful, low-frequency rhythm section; and extreme tempos. Not the "brutishly simple, debilitatingly negative and violent" noise its detractors describe, metal, in actuality, is a complex artistic reflection of a complicated world (Walser 24-25). Robert Walser suggests that "what seems like rejection, alienation, or nihilism" in metal may be more productively viewed "as an attempt to create an alternative identity," the impulse arising out of "dissatisfaction with dominant identities and institutions" and a desire to come to terms with something that makes more sense (xvii). Metal is both willing to respond to hegemonic norms and capable of imagining alternate possibilities.

This is also the role of science fiction. The science fiction genre offers commentary on the existing world through descriptions of other planets, parallel universes, alternate histories and potential futures, speculating on what could or might be—interpolations of how society got where it is and extrapolations of where present attitudes and practices might lead us. According to Darko Suvin, science fiction has become "a diagnosis, a warning, a call to understanding and action, and—most important—a mapping of possible alternatives" (12). More specifically, science fiction can provide the means to examine life in an age of rapid scientific and technological development (Sobchack 8). Emphasizing science, empirical method and rationality over spirituality and mysticism

(Sobchack 63), science fiction offers the "appropriate language" for addressing issues such as the changes wrought by science and technology and the impact of technology on "the [human] self" (Telotte 12).

Our anxieties about these issues—concerns about the increasing ubiquity of technology, our growing reliance on technological systems, the encroachment of technological interventions into the human body and identity, the ecological devastation wrought through technological developments, and the political power of those who control our technology, for example—tend to surface in science fiction's darker expressions. Yet darkness does not necessarily imply hopelessness, and in recent decades, scholars have identified a form of dystopian writing and filmmaking that tempers fearful concepts with utopian possibilities and open-endedness (Baccolini 16-18) or depicts dismal futures as the direct result of contemporary mistakes or "causes" (Penley 126). Labelled *critical dystopias*, such works are not simply indications of our culture's inability to imagine its own future or demonstrations of our willingness to "revel in the sheer awfulness of The Day After" (Penley 126); rather, this literature and cinema represents a "strongly, and more self-reflexively 'critical'" body of texts that retrieve and rework the "progressive possibilities inherent in dystopian narrative" (Moylan 188).

My argument in this thesis is that metal music, despite its stereotypical associations with negativity, nihilism and unsophisticated noise, can also take the form of the critical dystopia, using science fiction frameworks, themes and images in its sounds, lyrics and visuals to point to contemporary problems as the root of dystopian futures and possibilities. Metal's own "darkness" lends the genre to dystopian themes, and although there is nothing inherently critical or progressive in metal's turn to science fiction for

inspiration, the critical dystopia in metal represents one speculative strain of this musical genre's broader social conscience, which manifests itself in songs about political oppression, social justice, and the destruction of the environment, among other issues. As my analysis makes clear, the impulse of some metal musicians to voice social commentary in the vocabulary of science fiction finds precedence and inspiration in several sources—literature, cinema and other forms of popular music, including psychedelia, progressive rock, and industrial music.

In the 1990s, metal music's harsh guitar-based aggression, its social critique, and its explorations into the potential sounds and high-tech themes of contemporary science fiction merged most tangibly in the music of two bands, Voïvod and Fear Factory. Sometimes dubbed by press or publicists as "cyber metal"—a term I have adopted for the purposes of analysis—the mid to late 1990s albums by both bands offer extended conceptual narratives examining human life in highly technological societies, sharing a willingness to turn to samplers and other digital technologies for music-making and effects production, the use of more stripped-down, mechanical rhythms and a movement away from displays of virtuosity. Their songs and albums do not simply feature science fiction lyrics—they also address anxieties about humanity's relationship with technology by incorporating those concerns into the sound of the music itself, sampling industrial machinery, computerized equipment, urban life, or high-tech movies and evoking the mechanized power and momentum of technologized systems but also the positive potential of technological advancement.

While these works focus on the issue of human existence in a technologically-advanced society, they emerge from and respond to a complex web of events and cultural

developments, including the end of the Cold War and its constant threat of nuclear annihilation, new Western military engagements in the Middle East and weapons of mass destruction, as well as a decline in metal's mainstream popularity and the rise of new hard music phenomena such as grunge. Several songs also offer a stream of veiled commentary on specific contemporary affairs, such as the Los Angeles riots of 1992 and the United States' Alaskan-based HAARP surveillance project. Nevertheless, the dominant concern fuelling and linking these albums together is the impact of technology and technology-dominated thinking on autonomy and individuality, human nature (and the nature of humanity), and on the survival of our species.

The notions of autonomy, individuality and humanity conveyed by these works and the anxieties about the relationship between humans and technology that they express belong to a specific sociocultural moment and place. While an in-depth exploration of identity politics is beyond the scope of my thesis, it is important to acknowledge the social positions these musicians occupy and to recognize the impact of gender, ethnicity and other identity issues on their creative output. For example, the members of Fear Factory and Voïvod (and nearly all of their collaborators) are men working in a male-dominated music genre, which may explain why the albums examined here focus on male characters and do not challenge gender politics as part of their social critique. The artists' lack of engagement with issues of ethnicity and nationality may be less straightforward—Dino Cazares of Fear Factory was born in Mexico and drummer Raymond Herrera's background is also Latino, and both Denis D'Amour and Michel Langevin are Quebecois—however, it is still not particularly surprising in a music scene where English is the predominant language and American and British Anglo-Saxons have

been the predominant players. In the worlds envisioned on the albums examined here (and on many other metal albums) there are basically three kinds of people—those who are part of the dominant system of control, those who are oppressed by the system, and those who resist—a construction that erases differences of gender, sexuality, nationality and ethnicity.

The fact that Fear Factory and Voïvod avoid addressing identity politics is not simply a matter of genre conventions; it is also tied to dominant constructions of subjectivity that define humans as unified, coherent beings with stable identities. The way in which these artists emphasize autonomy and individuality as essential human qualities that make us distinct from machines and other living creatures, and their consequent suspicion of conformity and 'group mentality,' also resonates with the bourgeois liberal humanism that has played such a dominant role in post-Enlightenment Western ideology, and which sees " 'man' as rational, autonomous, unique, and free" (Simon 4).[1] When these musicians suggest that we may rise above contemporary problems by transcending our human forms or evolving toward a new human-machine hybridity (as Fear Factory does on these albums) it undermines the emphasis on individualism but simultaneously contributes to the erasure of differences that might be celebrated by other artists coming from other social places.

The idea that we may find a solution to injustices and inequality in the union of human and machine is closely related to another notion that comes through on these

---

[1] Many metal and rock artists (and some of their critics) emphasize individualism; see Robert Walser on Guns N' Roses (165-168), Durrell S. Bowman on Rush, and Harris M. Berger (*Metal* 267-268) and Natalie Purcell on death metal (48-49). Purcell also notes that the metal fans she surveyed tend to value individualism and "thinking for themselves" (126).

albums—that it is possible to fight back against the oppressive systems that exploit technology's potential for control and destruction by subverting technology and manipulating it as a tool for 'good'. Laura Bartlett and Thomas B. Byers find a similar liberal humanist outlook in the science fiction film, *The Matrix* (1999), which suggests (invoking an old capitalist myth) that human liberation can be achieved through "self-actualization and an assertion of autonomy" and that technology is "the liberating medium" (44). One of the difficulties with such a narrative is that it constructs the technologically adept individual as the 'master' of 'his' own destiny and frees 'him' from any responsibility for the welfare of others, and as Bartlett and Byers observe, this perspective makes "radical change" and the "destruction of the [oppressive] system" unnecessary (44). The fact that similar ideological constructions can be found in science fiction cinema and science fiction metal (and much sf literature, for that matter) is not surprising; like metal, science fiction film and literature has also traditionally been the realm of white, Western males. It is this qualified notion of 'human' and 'humanity' that I refer to throughout my analysis.

Science fiction literature and sf cinema have been the object of much theoretical and critical work, and there is a small but growing body of texts addressing science fiction and music, but the intersection of metal music and science fiction has, as yet, received little critical attention. Deena Weinstein has examined Rush's futuristic *2112* album (1976) as a "serious" dystopian text (*Serious Rock*), Walser's *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* includes brief analyses of a few songs that could be classified as 'science fiction metal' (although he does not use the term) and metal receives passing mention in discussions of science fiction and popular

music by Mark Dery and Ken McLeod, but examinations of metal's engagement with science fiction end there.

I do not wish to claim that science fiction metal or cyber metal are genres or subgenres of metal music. Science fiction metal is a scattered accumulation of musical texts linked with science fiction through concepts, imagery, lyrics, and/or sounds, and the metal bands that have turned to science fiction for inspiration are musically diverse. Science fiction music, in general, is an ungainly group of texts lacking any kind of generic coherence; therefore, as Philip Hayward notes in the introduction to *Off the Planet: Music, Sound and Science Fiction Cinema*, there is no "musical genre of SF as such" (3). Certainly genre classifications from literature and film do not move easily into musical discourse, which has its own generic categories that tend to privilege sonic and performative conventions over subject matter. Yet the terms *science fiction music*, *science fiction metal* and *cyber metal* can serve as useful analytic classifications, and they are certainly not the only labels to come up for debate—even the existence of a film genre of science fiction has been questioned by sf literature buffs in the past (Landon xvi; Sobchack 20).

Science fiction stories rely on the written narrative and the printed page (unless translated to 'ebook' or 'audiobook' form), but science fiction films emphasize spectacle over story (Landon xvii) and can, through special effects, "reflect the technology that makes them possible" (Telotte 25). Like much popular cinema, most popular music—through amplification, multi-track recording and electronic effects—also exercises the potentials of technology. And while science fiction songs emphasize sound over spectacle, like movies, popular music provides sensory stimulation—even more so

when accompanied by the visual enhancement of videos, live performance, album artwork and, more recently, band-sponsored websites, which all serve to provoke the senses as much as they contribute to meaning. While it is important to recognize these differences, and to acknowledge the sensory impact of science fiction cinema—as has Susan Sontag (1965)—and music—as have metal critics Friesen and Epstein, for example—the distinctions between the different media do not negate their common thematic ground or the usefulness of applying the term *science fiction* to works in music and film as well as literature.

My analysis of albums by Voïvod—*Negatron* (1995) and *Phobos* (1997)—and Fear Factory—*Demanufacture* (1995) and *Obsolete* (1998)—and examples of science fiction metal that predate them involves a reading of the sonic, verbal, and in some cases, visual dimensions of the musical texts. While I owe these categorizations, and many references, to Deena Weinstein's important examination of the metal scene, *Heavy Metal: The Music and Its Culture*, my interpretations rely on a sonic semiotics of heavy metal derived largely from the metal criticism of Robert Walser and Ronald Bogue and Karen Collins' study of industrial music, on basic practices of textual analysis, and on my own experience as a metal critic, musician and fan. Although I am not a musicologist, my examination of these texts involves some musicological as well as literary analysis, and my readings are inevitably informed by my experience and position as a young, white, female metalhead.

In recognizing these albums as the work of specific artists, and in relation to the artists' larger bodies of work, my analysis also gives a nod to auteur theory, the usefulness of which for the study of popular music has been demonstrated by Barry Grant

("Frank Zappa"), among others. I recognize the pitfalls associated with the intentional fallacy and privileging authors' intent, but when attempting to argue for metal's legitimacy as a significant form of cultural production, it is important to acknowledge that the 'critical' nature of these dystopias is not by accident, or my reading "into" the texts, but rather the result of the artists' own critical intentions. However, while this thesis pursues its textual analysis of science fiction metal within a broader sociocultural context, listener response studies were beyond the scope of the project, which does not investigate or make claims about how fans actually do understand these works and the genres to which they belong, but rather focuses on what a close reading of these texts can reveal about their place in and relationship with the surrounding world.

While Voïvod and Fear Factory's dystopian narratives run through lyrics, sounds and visual imagery, the visions conveyed by words, sound and image do not always match up, and this analysis aims to look at the disjunctions as well as correspondences, proposing a reading that considers the musical text as a whole, and the album as a complete musical text—a "definitive" recorded performance (Grant, "Frank Zappa" 25). In an age of multiple pressings, easily procured imports, and downloadable tracks, determining which particular recording deserves definitive status can be a tricky process, and I have had to draw lines, including some recorded texts and not others. I have not considered bonus tracks in my analysis of Voïvod and Fear Factory's work because of the tracks' exclusivity—they were not available in all geographical areas or on many original issues of the albums and tend to be extraneous to the albums' main concepts (or, in some cases, are remixes of album tracks). I do make reference to the videos both bands released for these albums because the videos have received some television airplay; nevertheless, the

videos generally were not conceived by the original artists as part of the conceptual package, and most involve some performative conventions of the metal genre that have no direct bearing on the bands' engagement with science fiction, dystopian concepts, or social criticism.

Before examining the critical dystopias of Voïvod and Fear Factory in detail, this thesis must lay some groundwork. The first chapter, "Generic Foundations," provides more in-depth definitions of metal music and many of its subgenres, and a brief overview of some of the key academic literature on science fiction and dystopian cinema and writing. With reference to other genres of popular music such as progressive rock and industrial, this chapter establishes the semiotics of metal music that will form the basis of my later analyses. The following chapter, "Science Fiction Meets Metal, and Fears of High-Tech Systems Gone Awry," traces the musical lineage of science fiction and dystopian metal throughout the 1970s and 1980s and examines the traditions of technophobic and dystopian writing and filmmaking and their relationship with major sociopolitical and technological developments of the past century, particularly its final decades. The third chapter, "Science Fiction Metal: The Emergence of Voïvod and Fear Factory," discusses the 1980s and early 1990s works of Voïvod and Fear Factory, as well as the musical and cultural contexts of the time period, providing the necessary background for my analysis of the bands' later albums.

The next chapter, "Cyber Metal as Critical Dystopia: Reading *Negatron*, *Phobos*, *Demanufacture* and *Obsolete*," examines these four albums by Voïvod and Fear Factory in depth, discussing their key thematic concerns as expressed in music, lyrics, and visual representations, and supplementing my analysis with references to published reviews and

interviews and to my own interviews with some of the original artists involved in the creation of these works.[2] This thesis then concludes with a reconsideration of metal's longstanding relationship with science fiction and dystopia and the potential, within that relationship, for social critique. My conclusion also situates this study within the broader and ongoing critical discourse in popular culture and popular music studies, and suggests potential avenues of further research.

Just as the broad category of *science fiction* crosses boundaries between different media, this thesis aims to bring together several different disciplines, combining concepts and techniques from popular music and metal criticism, science fiction literature and film studies, utopian and dystopian studies, and cultural studies in an examination of science fiction-inflected popular music texts. Within this framework it is possible to examine the recorded musical text as part of a larger network of artistic traditions, as the product of a specific culture and time period, and as the work of particular artists operating within these artistic modes and culture. By studying science fiction metal through this interdisciplinary approach, I hope to add weight to the argument, expressed by scholars such as Robert Walser, that metal is culturally relevant and that it is not inevitably negative and nihilistic. I also wish to contribute to a better understanding of the ways in which generic traditions function in multiple media and in response to the society from which they emerge.

---

[2] See Appendix A for explanation of interview methodology and process.

Generic Foundations

Before this thesis can begin to investigate the sociocultural significance of a category of popular music described with the genre labels *science fiction* and *metal*, and of a subcategory of music termed *cyber metal*, it is first necessary to explain my approach to genre analysis and to establish what such labels generally mean. Science fiction metal is an intersection point between two genres of popular entertainment—metal music and science fiction—and it is necessary to look at some of the basic similarities between metal and dystopian science fiction and metal's relationship with other genres of popular music in more detail. Turning to some of the key academic works on metal music, science fiction literature and film, utopian/dystopian studies, industrial music, and progressive rock, I establish working definitions of these genres and forms, and identify the primary connotations associated with particular musical conventions—outlining my method of reading metal's musical texts.

The difficulty and hazards of defining particular genres of cultural production have been addressed by numerous academics (see, for example, Altman, Buscombe, Telotte). Genres are constructed categories (Frith 88) that are always subject to change (93), evolution, decay (Miller in Gunn 34) and exhaustion (Byrnside in Weinstein 43). As Simon Frith observes, "genre maps" also shift "according to who they're for" (77); the inherent instability of genre taxonomies owes itself not just to the passage of time but to the different actors participating in genre discourse and to the use of genre labels to offer condensed sociological and ideological arguments about the works they name (Frith 86). While popular music genres do exhibit considerable stability, it is necessary to acknowledge genre categorization as a system of discourse and meaning making for

several groups—artists, fans, media, the entertainment industry; genre labelling is a popular practice as well as a tool for scholarly analysis (Frith 88-89, Gunn 35, Neale 19, Wall 146, Weinstein 22).

The impact of forces such as audience and industry expectations or the critical role of the popular press helps to ensure that generic works (and often their audiences) conform to established rules or conventions that dictate form and technique, ways of conveying meaning, behaviour, the type of images and ideas expressed, and modes of production (Fabbri in Frith 91-93). Nevertheless, it is also important to recognize the capacity of individual artists for subverting genre rules or for finding outlets for personal concerns within those constrictions (Buscombe 22). I will address the efforts of individual artists in the following chapters; this chapter seeks to outline some of the common conventions of metal and science fiction, dystopias and critical dystopias, and related genres of popular music that provide insight into the meaning of generic texts, regardless of how slippery genre labels themselves can be.

Metal Music

The birth of metal music has been attributed to several sources, British and American, and to a period spanning the late 1960s and early 1970s (Berger, "Practice" 467). However, metal journalist and chronicler Ian Christe proposes a precise birth date—February 13, 1970, the day on which a group of musicians known as Black Sabbath emerged out of England's blues revival scene with "the first complete heavy metal work by the first heavy metal artists," its sound distinguished by an "ominous presence," creeping tempos, "immense volume" and "sustained feedback" (4). In the introduction to Martin Popoff's *The Collector's Guide to Heavy Metal Volume 1: The*

Seventies, Rob Godwin lists several blues, rock and psychedelic artists commonly cited as metal pioneers, including Led Zeppelin, Jimi Hendrix, Cream, The Yardbirds, MC5, The Kinks, The Who and Iron Butterfly, but Godwin ultimately supports Popoff's assertion that metal, as a distinct genre, emerged with the release of three particular albums in 1970—Black Sabbath's *Paranoid*, Deep Purple's *In Rock*, and Uriah Heep's *Very 'eavy Very 'umble* (5)—and their prominent guitar riffs ("huge," "galloping" "fire-breathing"), powerful percussion, and dark atmospheres (45, 84, 300-301). David Konow begins his history of metal with Black Sabbath and Deep Purple as well, but cites Led Zeppelin rather than Uriah Heep as co-founders of the genre.

Academic histories of metal tell similar stories. Will Straw notes that key stylistic traits of the metal genre can be found in the fringes of psychedelia—Blue Cheer, The Yardbirds and Iron Butterfly, for example (97). Deena Weinstein asserts that metal culture has tended to favour either Led Zeppelin or Black Sabbath as originating figures (*Heavy Metal* 14-15), but Harris Berger's interviews with scene members indicates that, at least in Ohio, metalheads tend to give the credit to Black Sabbath (56-57). Andy Bennett remarks on the contestable nature of metal's precise origins as well but, citing Robert Christgau and Steve Waksman, implies the metal "phenomenon" emerged with Led Zeppelin's "heavily amplified blues-rock" (42). Weinstein identifies metal's formative years as 1969-1972, with the fusion of blues rock and psychedelic music that would crystallize into many of the genre's conventions in the mid-1970s (14-16), while Robert Gross situates metal's beginnings a few years earlier, 1967-1969 (120). Robert Walser traces metal's genealogy further back to African-American blues (8), but proposes a similar metal triumvirate to Popoff's, substituting Led Zeppelin's *Led*

Zeppelin II for Uriah Heep and remarking on characteristics such as the bands' speed and power; the "heavily distorted crunch" of their guitars; their "emphasis on the occult"; and their use of blues-influenced riffs, wailing vocals, contrasting dynamics and, in the case of Deep Purple, classical influences (Walser 8-10).

While the various arguments situating metal's emergence as a distinct genre of popular music each have merit, for the purposes of this thesis I draw the starting line at the release of Black Sabbath's self-titled debut album. It is not my intent to argue in favour of a precise origin; however, it is necessary to establish generic boundaries to proceed with a concise and coherent analysis, and of the early metal bands, Black Sabbath is most strongly associated with the genre's dystopian character, as will become more apparent in the next chapter. Several authors have described Black Sabbath's deliberate efforts to challenge the utopian ideals of the 1960s counterculture (Christe 8-9; Harrell 97; Konow 3; Weinstein, *Heavy Metal* 33); this cynicism and desire to confront brutal realities has become a common convention of the metal genre and is metaphorically expressed through metal's relationship with dystopian science fiction.

What I refer to here as *metal music* is often termed *heavy metal.* Within the metal scene, the shortened form, *metal,* has evolved as the broader label, encompassing a wide range of styles and heavy music practices (see Weinstein, *Heavy Metal* 7-8)—subgenres whose names are usually compound variants sharing "metal" as the common denominator. *Heavy metal* has become a more specific term, referring to early forms of metal or contemporary music that is classic in form and sound, or is used to express particular emphasis. The words "heavy metal" evoke science and technology—firepower, warfare, and environmental pollution—and have been used to describe, by Steppenwolf,

the roar of a motorcycle or, by William Burroughs, inhabitants of Uranus (Christe 10; Walser 1, 7-8; Weinstein, *Heavy Metal* 18-20). Application of the term to a style of music implies recognition and reinforcement of the genre's enduring relationship with the sounds and imagery of power and technology, and the potential dangers of both.

Walser observes that rock journalists employed "heavy metal" as a descriptive phrase in the 1960s, before the term "became a noun and thus a genre" (7). In the 1970s that genre included sounds as diverse as Ted Nugent, Rainbow and Blue Öyster Cult (Walser 10), and early academic work on metal demonstrates a similar inclusiveness, considering Humble Pie and Journey as generically united with Black Sabbath, Uriah Heep, Deep Purple and Led Zeppelin (Straw). Rock critics often used the term "heavy metal" interchangeably with other labels like "hard rock" (Brackett 267) and even "progressive" (Popoff, *Seventies* 5) at this time, although Weinstein notes that "hard rock" was more common in the United States because of the stigma attached to heavy metal music and the relative dearth of actual metal bands in the U.S. during the 1970s (*Heavy Metal* 20-21)

In the following decade the metal genre began to follow a trajectory of expansion and fragmentation (Walser 13; Weinstein, *Heavy Metal* 44-45). New genre labels began to emerge, identifying "thrash metal, commercial metal, lite metal, power metal, American metal, black (satanic) metal, white (Christian) metal, death metal, speed metal, glam metal" (Walser 13). Academics have tended to filter these newer variants into two main categories, one representing the more popular forms of metal that received mainstream airplay and press and high record and concert ticket sales, the other representing the harder or heavier forms of metal that proliferated through an underground scene (Brackett 376; Walser 13-14; Weinstein, *Heavy Metal* 43-52), although these distinctions became

less stable as the decade progressed (Brackett 376, Walser 15). The softer subgenres of metal are closer to pop music in sound and themes (Bennett 45; Friesen and Epstein 8-9; Walser 120)—Weinstein identifies the lyrics of "lite metal" as Dionysian in nature, focusing on "love and lust," in a style that favours the "power ballad" form (*Heavy Metal* 46-47). Underground metal is "more deliberately transgressive, violent and noisy" (Walser 14)—encompassing subgenres such as power, thrash and speed metal, this music is faster, often incorporates elements of hardcore punk, and focuses on concepts of chaos (Weinstein, *Heavy Metal* 48-52).

Because this thesis focuses on dystopian concepts in metal, the bands and music examined here tend to fall in the underground category, eschewing themes of celebration and physical pleasure and, for the most part, pop music sounds for "chaotic" imagery and music. This is not to say that these bands received little or no popular success. Rather it is to recognize that science fiction and dystopian elements surface more frequently in the works of less pop-oriented bands, and might be generally understood as illustrating metal's preoccupation with chaos and darkness. For the sake of simplicity then, rather than repeatedly distinguishing between pop and underground metal, I will proceed under the premise that (unless otherwise specified) general observations about trends and characteristics of metal in this thesis refer to metal in its heavier and darker underground forms.

Science Fiction and Dystopian Fiction

This history of science fiction reaches back much further than that of metal music. As a result, scholars have built up a substantial body of critical work on science fiction

literature and science fiction film. Andrew Milner notes that science fiction historians have located the origins of the science fiction genre in the writing of Jules Verne, H. G. Wells, Edgar Allan Poe, and Mary Shelley, and of science fiction film in George Méliès's *Le Voyage dans la Lune* (1902) (260). Philip Hayward also identifies Wells, Verne and Méliès as pioneers in the science fiction genre, noting that the precise starting point, as for any genre, is contestable (3). Darko Suvin takes a broader approach to defining science fiction literature, finding extrapolative and analogical forms of sf in earlier writing as far back as that of the Ancient Greeks (12). J. P. Telotte also recognizes a broad foundation for contemporary science fiction, acknowledging that several confluent and overlapping histories are implicated in the development of the genre, including Western myth and folklore and literary tales of wonder (63-65).

Suvin defines science fiction as a "literature of cognitive estrangement," cognitive because it examines norms as changeable—what distinguishes sf from myth, fantasy, and folk/fairy tales—and estranging because it seeks to make the known unfamiliar (4-7). Approaching the definition of science fiction from the perspective of a film scholar, Vivian Sobchack suggests it is a genre that emphasizes empiricism, science and technology (actual, speculative or extrapolated) but which still maintains elements of the "transcendentalism of magic and religion" in its efforts to "reconcile man with the unknown" (63).

Sobchack stresses the social nature of science fiction—its concern with science and technology for its effects on society (63) and its representations of social, (rather than moral) chaos, disruptions to the social (man-made rather than natural) order, and threats to civilized society (rather than the individual or the family) (30). Telotte, however,

identifies three key themes of sf film that express anxieties around human nature and humanity more than social issues—the substitution of humans with inhuman (alien, robotic) impostors, the finding of humanity not in reason and science but in passion and desire, and the distrust of rationality as a means of planning and understanding human lives (19-23). Articulating these concerns through a vocabulary of reason, science and technology, sf films are particularly well suited to explore the "quandaries" confronting a highly technological society (19). More specifically, cinematic special effects imbue sf film with a particular reflexivity, allowing sf film the ability to "harness the technological power that drives it" and address "the technological attitude that haunts it" (Telotte 24-30).

Issues of technology, its relationship to humanity, and the implications of that relationship clearly predate science fiction cinema. Dystopian writing has long concerned itself with speculations on where technology may lead us, often portraying our fascination with and reliance on technology as a hazardous preoccupation. This body of technophobic literature

> questions or expresses fears about technology and science in general and raises the specter of totalitarian control that operates with mechanistic efficiency. It establishes a kind of paradigm of horror, life and society completely dominated by what Jacques Ellul calls the technological imperative. These are fictional futuristic societies where humans are increasingly separated from nature and from themselves, history, culture and experience; living soul-destroying, alienated lives (Fox 258).

A common theme in technophobic writing is that of "autonomous technology"—the notion that "somehow technology has gotten out of control and follows its own course, independent of human direction" (Winner 13). While fears of wayward technology may be the "symptom of a profound stress that affects modern thought," the concept predates the twentieth century (Winner 13). Over the past hundred and fifty years anxiety over the possibility of autonomous technology has haunted "countless novels, poems, plays, and motion pictures" (Winner 30), has shown up in U.S. best-sellers, and has been taken up by the ecology movement (14). The image of technology as self-controlling remains attractive to a large number of people because it appeals to a general "sense that many of our most fundamental expectations about the technical sphere no longer hold" (Winner 19).

Science fiction's most sophisticated examinations of the social and human implications of science and technology have enabled the genre to diagnose contemporary problems, warn of future consequences, call for "understanding and action," and map "possible new alternatives" (Suvin 12). However, the genre is not always progressive, despite the efforts of some fans and critics to maintain sf's critical status by withholding the name "science fiction" from works that lack "visionary" qualities or fail to pursue some avenue of intellectual interrogation. Suvin, for example, excludes pulp sf from his definition of science fiction, calling such works sub-literary, juvenile fairy tales (23-24) or "science-fantasy" (68).

Science fiction film, often characterized as inherently inferior to its print counterpart, has fared even worse in such evaluations (Landon xvii; Sobchack 19-20). Susan Sontag argues that sf films (of the 1950s and early 1960s) do not offer the "intellectual workout"

of their print counterparts (212). Science fiction films are not about science at all, Sontag argues; they are about disaster, and use the power of special effects for "sensuous elaboration"—demonstrating the aesthetic beauty of destruction (212-213) to reflect but also allay cultural fears (225). While Sontag acknowledges sf cinema's expression of anxieties about nuclear warfare (218-219) and dehumanization (223), she asserts that sf films completely lack social criticism because they fail to criticize the social conditions responsible for such threats and displace the blame onto some "alien It" (223). Applying the concept of sensuous elaboration to more recent films, Barry Grant suggests that cinematic special effects, in general, tend to privilege spectacle over speculation (20) and that science fiction films offering social critique are still in short supply ("Sensuous Elaboration" 22).

Nevertheless, science fiction's "imagination of disaster" is not always devoid of social criticism, and not all dystopian visions revel in the beauty of destruction. Ryan and Kellner identify several science fiction films of the 1970s and early 1980s that express "covert attacks" against capitalism and patriarchy (48). They suggest that dystopias (or negative utopias), in particular, "are vehicles for populist and radical critiques of the capitalist ethic and of capitalist institutions" (54). Tom Moylan argues that dystopian texts have always fallen along a continuum between critical and anti-critical, utopian and anti-utopian positions (188), the former—the true dystopia—expressing "militant pessimism" and openness; the other—the "pseudo-dystopia"—closed, "resigned pessimism" (195).

According to Suvin, the utopia is a "socio-political subgenre of science fiction," a "verbal construction" of a "more perfect" community than the author's own (49). Lyman

Tower Sargent concedes that utopias tend to be published as science fiction literature; however, Sargent sees science fiction as flowing from the "well-spring" of utopia (11), which encompasses the general utopian phenomenon and "intentional societies" as well as literature (13). Like Moylan, Sargent distinguishes dystopias from anti-utopias, characterizing the latter as works that attack "utopias in general or a specific utopia," while the "traditional dystopia," Sargent asserts, is "an extrapolation from the present that involve[s] a warning" (8). Sargent also proposes the term critical dystopia to describe an emergent variation of utopia that combines the characteristics of the dystopia and the eutopia, or positive utopia, and challenges simplistic distinctions between the two (7-9).

Sargent cites the feminist criticism of Raffaella Baccolini as proof that "unidimensional analyses" of utopian/dystopian writing are inadequate (7-8). Baccolini responds by taking up Sargent's concept of the "critical dystopia" and applying the term to feminist science fiction dystopian narratives that "maintain a locus of resisting hope and subversive tension in an otherwise pessimistic genre" (30). Approaching science fiction literature as a potential forum for counter-hegemonic discourse, Baccolini argues that the critical dystopia's "questioning of generic conventions" and open-endedness "contributes to deconstructing traditions and reconstructing alternatives" (13).

While Baccolini identifies "critical" or "open-ended" dystopian strategies in texts dating as far back as the 1930s (Baccolini 13), Tom Moylan reserves his use of the term *critical dystopia* for works arising out of the sociopolitical conditions of the late 1980s and 1990s (Moylan 188). Critical dystopias differ from traditional dystopias in their lack of closure—"the ambiguous, open endings of these novels maintain the utopian impulse *within* the work," whereas traditional dystopias "maintain utopian hope *outside* their

pages, if at all" (Baccolini and Moylan 7). The critical dystopia is distinct from "anti-critical" or "pseudo" dystopian texts as well, which "appear to challenge the current social situation" but reproduce it by "ideologically inoculating viewers and readers against any form of anger or action" (Moylan 196). Moylan also distinguishes the "creative conjunction of hacker, punk and sf cultures" known as cyberpunk from the critical dystopia, arguing that cyberpunk's critical potential was stunted by its tendency to seek out ways of existing within the problematic system it portrayed and, citing Suvin, its failure to allow a "contestatory option" to develop (197).[3]

The critical dystopia has primarily come under academic study as a literary phenomenon, and other scholars, such as Peter Stillman ("Dystopian Visions"; "Dystopian Critiques"), have applied the concept of the critical dystopia to the analysis of specific literary texts. Constance Penley proposes the existence of critical dystopian films as well, suggesting that such films do not simply "revel in the sheer awfulness of The Day After" but depict "corporate totalitarianism, apocalypse, or both" as the result of "present tendencies," locating the "origins of future catastrophe in decisions about technology, warfare and social behaviour that are being made today" (126). Peter Fitting also demonstrates the existence of the critical dystopia in cinema and shares Penley's view that the films' critical impulse lies in "an explanation of how the dystopian situation came about" (156). Countering Sargent's suggestions that the critical dystopia is a

[3] Featherstone and Burrows associate the term cyberpunk with literature that focuses on dark images of future cyberspaces, post-human forms, and a "vast range of technological developments and power struggles" (3). As Moylan's reference to cyberpunk cultures indicates, the label has broader applications as well, and has been used to describe, for example, computer obsessed youth and electro-industrial rock (Dery 75).

combination of utopia and dystopia, Fitting argues that critical dystopias are dystopias foremost (155).

The critical dystopia in metal music adheres to the same impulse. Science fiction metal may be characterized as metal music that in its lyrics, visual imagery, or sound, expresses concerns or hope for the social impact of technology or the impact of technology on humankind, and it may offer a warning or even a call to action. The critical dystopia in science fiction metal is all of these things, and addresses anxieties about the relationship between technology and humanity, and technology and society, and identifies contemporary mistakes as the root of future problems, presenting dystopian visions tempered by elements of utopian hope.

Reading the Metal Text

Popular music scholars' interest in audiences, youth culture, delinquency, gender and other identity issues has influenced and shaped much of the academic work on metal music and culture (Arnett; Beckwith; Epstein and Pratto; Friesen; Friesen and Helfrich; Gross; Hakanen and Wells, "Adolescent Music" and "Music Preference"; Kahn-Harris, "Unspectacular"; Kotarba; Phillips; Purcell; Sloat; Straw; Verden, Dunleavy and Powers; Weinstein, *Heavy Metal*). More recently, the high profile of globalization and the existence of metal cultures outside the United States and Britain have inspired scholars to examine metal scenes from Norway (Vestel), Brazil (Avelar; Harris), Bali (Baulch) and Israel (Kahn-Harris, "Israeli Extreme Metal") as well. But there are also several text-based analyses of metal (Bogue, *Deleuze* and "Violence"; Friesen and Epstein; Harrell; Hinds)—as well as sections of textual analysis in academic works focusing on other

aspects of metal culture—that point to the fact that the music itself demands critical examination. Walser's *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* was one of the first substantial and systematic studies of metal as music, but Weinstein also devotes some attention to the metal text in her cultural sociology of metal, *Heavy Metal: The Music and Its Culture*, and her division of metal music into sonic, visual, and verbal dimensions (22-43) establishes useful analytic distinctions for examining metal productions as multimedia texts. While I intend to consider all three dimensions to varying degrees in my own analysis, the focus of this section is on the sound of metal music and what can be read from metal's sonic text.

Writing in the early 1980s, Straw identifies several of metal's dominant stylistic traits up to that time—an emphasis on virtuosity, demonstrated by, for example, "the cult of the lead guitarist," the "importance of extended solo playing and a disregard for the temporal limits of the pop song" (97). Berger also lists "individual virtuosity" as one of metal's defining characteristics, along with "extremely distorted electric guitars," "elaborate group arrangements," and "grim or aggressive emotions" ("Practice" 467). Friesen and Epstein mention heavy distortion as a distinguishing feature of metal music as well, but suggest the genre relies on "minor key song structures" and note an absence of keyboard use (3). Weinstein's catalogue of metal's primary sonic attributes includes "[h]igh volume, a wailing guitar, a booming bass drum, a heavy bass guitar line, and screaming vocals," and she argues that metal's meaning is not dependent upon the lyrics or melody but on "its timbre, its volume, its feel"—the elements that define its sonic power (*Heavy Metal* 27). According to Gross, the concept of power is a "key element" in most heavy metal songs (124).

Walser examines the relationship between metal and power in more depth, combining genre theory and discourse analysis (29), semiotics (31), and ethnomusicology (37), among other academic traditions, to outline and interpret the genre's conventions. Building on the small body of earlier critical work on the metal genre, Walser provides a highly-developed list of metal's "discursive" parameters. Beginning with timbre, he identifies the sound of the distorted electric guitar as the "most important aural sign" in metal, emphasizing its relationship with technological and human (or superhuman) power (41-44). The loudness of metal also produces a sense of power, again relying on technology, but using that technology to "expand aural space" and remove boundaries between the power represented by the music and the listener's experience of bodily empowerment (44-45). The sustain and overdrive often employed by metal singers to distort their own voices also implicates metal vocals in this evocation of power, and metal vocal performance tends to project "physical and emotional intensity" (45-46).

Walser discusses the use of specific musical modes and harmonies in metal as well, noting that the Phrygian mode, often used in speed or thrash metal, has an "unstable" or "claustrophobic" quality, due to the closeness between the second degree of the scale and the tonic (a half step or tone) (47). Thrash bands like Megadeth, Slayer, Metallica and Testament, for example, pursue "atonality," concentrating on musical "shapes and patterns [...] chosen to create tonal ambiguity and dissonance" or to sound "*wrong*" [original emphasis] (Harrell 94).

Addressing metal's rhythmic patterns, Walser suggests that movement between ensemble and solo sections in metal performance creates a "dialectic of freedom and control" (49). This dialectic allows listeners to experience both the power and "unitary

control" of the music's steady, rhythmic pulse, and the "escape and reintegration" enacted by accents and deviations, particularly those of the electric guitar and vocals (49-50). Like Weinstein, Walser finds that melody has less importance in metal than timbre, but suggests that metal melody can be used to evoke "power and intensity" but also to "signify resistance" in the unified context constructed by the other instruments (50). And like Straw, Walser notes the importance of the guitar solo in heavy metal, emphasizing its role as a demonstration of virtuosity (50-51).

One of the difficulties inherent in identifying and interpreting key elements of metal music is that any focus on the genre's basic characteristics tends to obscure the widely divergent paths metal has taken in its trajectory of expansion and fragmentation (a challenge faced by genre studies in general). Weinstein and Walser address this problem by distinguishing between heavy, classic or traditional metal; pop or lite metal; and underground, speed or thrash metal. Friesen and Epstein subdivide the genre slightly further, expanding their own summary of metal's basic core with an examination of four distinct subgenres—pop metal and thrash metal as well as progressive metal and grunge metal.

Thrash and underground metal have themselves become inadequate terms to distinguish the accumulation of musical practices that have developed in opposition to more popular metal forms. As several significant thrash bands began to experience increasing, if often temporary, mainstream success in the late 1980s and early 1990s, heavier, more 'extreme' propagators of thrash and of several new subgenres—primarily death metal, black metal, and doom metal—persisted in the underground or *extreme metal* scene. Extreme metal tends to be characterized by intensely fast (or in the case of

doom, intensely slow) tempos with frequent changes; guttural, growled or screamed vocals; short or few solos; an emphasis on low-frequency power through the use of two bass drums (double bass or double kick) and down-tuned guitars and bass guitars; as well as the use of the Phrygian and Locrian modes and the tritone (an augmented fourth) (Berger, *Metal* 57-64; Bogue , *Deleuze* 88-99 and "Violence" 95; Harrell 93-94 ; Harris, "Israeli Extreme Metal" 135; Purcell 9). The "rapid succession" of double bass hits that provides the "backbone" of extreme metal's beat creates a " 'machine gun' rhythm that corresponds to the overall tone of the music" (Harrell 93), and the music's "harmonic language" favours "unstable," "exotic" and "claustrophobic" intervals that offer "maximum tension and dissonance within the language of classical harmony" (Bogue, *Deleuze* 94).

Progressive metal, or prog metal, straddles the line between the mainstream and the underground (Friesen and Epstein 10). Far less "extreme" than death or black metal and less "traditional" than classic heavy metal, the progressive subgenre fuses metal with elements of jazz and art rock (Weinstein, *Heavy Metal* 289), often verging on progressive music in general (Friesen and Epstein 10). While all members of a prog metal band must be masters of their instruments, the guitar virtuoso is particularly important in this form, capable of executing complex chord progressions and changes in tempo, key, dynamics, and style (Friesen and Epstein 10). The musical virtuosity so important to traditional metal, progressive metal and progressive rock draws upon "classical music's legacy of virtuosity" (Macan 46; Walser ch. 3). But displays of virtuosity that demonstrate this connection, as well as the artists' technical proficiency, also have symbolic functions, signifying heroism, individualism and "an escape from social constraints" (Macan 46; see

also Waksman 243; Walser 75). The guitar solo's movement in resistance to the "potentially oppressive power of bass, drums and rhythm guitar" particularly evokes metal's empowering and liberating potential (Walser 54). Metal's lead melodies, and particularly guitar solos, do not simply express individual humanity in a metal song; they also represent it.

Grunge metal is in many ways the polar opposite of progressive metal. As Friesen and Epstein observe, grunge metal's aesthetics involve a rejection of the elaborate virtuosity outlined above (12-13), and while the music is guitar-based the genre lacks "guitar heroes" demonstrating advanced technical proficiency (Epstein 19). Grunge's attitude toward musicianship is aligned with the "do-it-yourself" (DIY) ethic of punk and its alternative music offshoots (Epstein 20). Scholars have sometimes preferred the more general label "alternative" for this metal subgenre (Friesen and Helfrich 272-273), which also encompasses metal/electronic music fusions and metal influenced by other forms of alternative rock besides grunge (Christe 222-225).

As an expression of the DIY approach to music making, alternative metal's anti-virtuosity stance is closely related to the anti-music ideologies of industrial—a genre of music that favours synthesizers over guitars, and uses mechanical, electric and digital technology to produce the "sounds of mechanical, electric and industrial machinery" and to reflect "feelings of alienation and dehumanisation as a form of social critique" (Collins 13). If displays of musical virtuosity evoke notions of heroism and individualism, industrial's anti-musicianship—including its "antagonism towards guitars" (79) and its use of short, repetitive melodic patterns and limited melodic range (76, 80, 81)—connotes a "machine aesthetic" and "rationalised assembly line production" (377). In a more

general sense, the industrial genre's "combination of aeolian and phrygian modes, machine-like rhythms, snare-drum percussion, noise, plodding bass lines," among other elements, "helps to situate the genre in an unambiguously dystopian future," and "emphasises the sense of technological dystopia portrayed in the lyrics, imagery, and other aspects" of the music (421).

The presence of electronica/metal fusions in the category of alternative metal indicates that the relationship between certain subgenres of metal music and industrial is not merely a matter of ideology. Existing in a no-man's land where the two genres overlap, industrial metal—also "metallized industrial" (Weinstein, *Heavy Metal* 288)—merges industrial and thrash (Collins 48; Weinstein 288), bringing together guitars, synthesizers, samplers and digital effects processors in its sound and often including science and technology in its subject matter. While the subgenre's use of the guitar is rooted in underground and extreme metal, particularly the playing of muted strings, heavy distortion, and power chords strummed with rapid down-strokes (Collins 78-79), industrial metal (in the spirit of anti-virtuosity) rejects the predominance of the guitar solo in favour of repeated riffs (Locher 103).

This last characteristic is one industrial metal and death metal share, as death metal tends to avoid traditional guitar (and vocal) heroics by suborning the vocalist and guitarist into the band unit (Bogue, *Deleuze* 95). Thus they become rhythm, rather than lead instruments, performing in tight percussive coordination with bass and drums to form a massive sonic machine (95). As this machine metaphor suggests, industrial is not the only music genre to demonstrate a strong relationship with mechanical imagery—as noted earlier, the term "heavy metal" brings to mind images of science and technology, but the

word "metal" alone also connotes "industry and machines" (89). In the "language of timbres," metal music evokes the substance its name denotes, "crunching, grinding, and shredding" with guitar "buzzsaws" and "chainsaws" the music creates "an aggressive sonic machine of destruction, an electronic, nonhuman sound shredder" (91).

Rock, in general, is a form of "electronic machine music" (Bogue, *Deleuze* 89). Like the rock music from which it emerged, metal music is a product of late twentieth invention, relying on electronic technology for its volume and distortion, for the effects units and processors that produce reverb and echo, and for the "sophisticated overdubbing techniques" used in recording and performance (Walser 45). The metal genre could not have existed before the 1960s, when it became technologically possible to amplify the low frequencies of the electric bass to the level of the guitar (Weinstein, *Heavy Metal* 24-25). As a music of technology, metal is an experiment "on the timbre continuum of electronic sounds," executed through the manipulation of its sonic machines—the guitars, pickups, amplifiers, and effects units (Bogue, *Deleuze* 89) that Walser mentions and implies.

Metal also reproduces in music the sounds of the technology it relies on and manipulates. Like the rhythms, timbres and techniques of industrial, extreme metal's percussiveness and mechanical rhythms; short, repeated melodic patterns or riffs; and restricted melodic range create a sound that evokes the workings of industrial machinery. According to Ronald Bogue, the fundamental sound of black, death and doom metal, in particular, is "that of the electric guitar treated as an electric industrial machine"—"produc[ing] sonic analogues of the sounds, rhythms and patterns of the modern technological lifeworld" ("Violence" 100). What one might infer from Bogue's

assessment is that the sound of metal is not only that of the individual machine or factory but also of the broader technological, rationalized systems of control behind them, evoking "powerful, industrial, machinelike, inhuman, [and] android" sociohistorical forces (Bogue, *Deleuze* 90-91). Extreme metal's relationship with industrial society is a paradoxical and "parasitic" one—the genre "constantly criticizes" the systems responsible for producing the technology (and avenues of mass distribution) on which its existence depends (Harrell 100).

The sounds of such criticism can be heard in metal's music. Metal's "monolithic, inexorable pulse," can evoke a sense of domination and control (Walser 49), and the power of bass, drums, and rhythm guitar, playing in tight coordination, is "potentially oppressive" (54). In the context of extreme metal, the insistent repetition and coordination within the rhythm section may become "apocalyptic" (Avelar 133) or take on the oppressive and mechanical connotations associated with repetition in industrial music (see Collins 376-386). Repetition on its own is not necessarily ominous, but when expressed in the powerful low frequency tones[4] and distorted timbres of metal's rhythm section, and combined with the tight intervals (see Walser 46-47), limited melodic movement and percussive playing style common in extreme metal, the repetition of short patterns can become menacing and machine-like. Stripped of the melodic leads and virtuosic solos that offer the strongest evocations of humanity in other metal subgenres, extreme metal's low-pitched, distorted and unrelenting repetition offers a sonic image of oppression and mechanization, evoking the precise performance of a large and loud machine and the technologically-dominated system that controls it.

---

[4] Collins notes that certain bass register tones are often "associated with threatening sounds" (411).

Death metal, doom metal and black metal create a "core sound" that "bears little relation to any sounds produced by conventional acoustic instruments" (Bogue, "Violence" 100). Extreme metal vocal performance can also have a "deterritoriali[zing]" effect, distancing the voice "from its ordinary, 'natural' speaking function," or "machin[ing] the voice" with the "anti-lyrical non-singing" of "growls, screams and grunts" ("Violence," 107). The metal vocal performance can rarely be described as a natural human sound in any case, due to metal vocalists' often deliberate distortion or overdriving of their voices (Walser 54) in the form of wailing, yelling, and screaming, for example (Weinstein, *Heavy Metal* 26). Several metal bands have also taken inspiration from industrial music's style of vocal performance, using technology—electronic effects—to further distort or "machine" the human voice. Thus the metal voice rarely sounds human except when used more restrainedly and melodically, or when the distortion and/or effects are peeled away.

Electronic vocal processing has long been fairly standard practice in industrial music, but was "considered taboo" by hardcore and metal musicians before the 1990s (Locher 103). Industrial musicians tend to electronically process the voice to produce harsh and mechanical vocal sounds or to replicate computerized tones (Dery, *Escape Velocity* 80). Collins describes such effects as "vocal mechanisation," disrupting the more 'natural' elements of vocal performance that would otherwise tend to signify the performer's individuality and humanity (Collins 399). Reproducing "the sound of a machine," vocal mechanisation is similar in sound to the "computer-generated robot, cyborg or android voices" of science fiction films (Collins 400), and is used in popular music in two primary ways—for novelty or humour, where the vocal effects signify something robot or

alien rather than human; and to give voice to the lonely robot, who represents alienation and dehumanization (403-406). However, when the monotonous tones associated with robot voices are not clearly marked as machine speech, they may alternatively evoke ritual or sacred chanting (Leeuwen in Collins 403). While extreme metal's unpitched and distorted vocals are often more 'monster' than machine, such performance styles occasionally take the form of a chant-like monotone or, as is more often the case, make use of electronic effects to produce a harsh mechanical timbre.

One further way in which metal music incorporates the sounds of technology into its own sonic fabric is through the use of the synthesizer and sampler. Collins notes that synthesizers—which are not always considered "legitimate" musical instruments—are a mainstay of the industrial music genre (73-79). The keyboard is not a primary instrument in metal. Weinstein observes that keyboards are merely a "permitted" appendage to metal's "standard" guitar, bass and drums "code" (*Heavy Metal* 25), and few analyses of metal even bother to consider the role of synthesizers or samplers in the genre. Metal musicians have also downplayed the role of keyboards in their music—in the 1980s, many keyboard players were forced to perform offstage during concerts (Christe 222-223).

Metal artists' reluctance to acknowledge their use of keyboards or to accept keyboards as legitimate instruments tends to be ideological, stemming from the incompatibility of the attributes generally valued in the metal scene and the connotations of keyboard use. The dichotomy between guitar and keyboard is tied to issues of masculinity, power and the vitality of live performance (Walser 41 and 109; Christe 223; Bogue, *Deleuze* 93). If the guitar is the ultimate metal instrument, a tool of power and

aggression, the keyboard seems more at home in art music, new age, and other forms of music less 'heavy' than metal (Bogue, *Deleuze* 93). While hypermasculine metalheads have often perceived keyboard sounds and electronic/dance genres as effeminate—even now a female metal musician is more likely to play keyboards than guitar or drums—the keyboard also has historical ties to church music (Bogue, *Deleuze* 93), an unpalatable association for many practitioners of a genre that tends to involve a rejection of organized religion. A further objection to keyboard use involves the guitar's role as a sign of liberation and heroic individualism, expressed through the vitality of "live" performance. Digital instruments, particularly samplers, are capable of reproducing the sound of the metal guitar, without the guitarist, threatening the role of the human musician while negating the spontaneity and individuality of the guitar solo with their programming and sequencing. In the semiotics of metal, the "cold and inhuman" technology of the synthesizer overshadows the guitar's relationship with technology, making the latter, in its role as melodic lead, seem a particularly human instrument in contrast.

Yet synthesizers can also produce more 'metal' sounds, and some metal musicians have embraced the potential heaviness of synthesizers (Bogue, *Deleuze* 93), as the existence of industrial metal demonstrates. Metal bands' incorporation of samplers and programming has generally taken its cue from industrial music, which "is built around the 'non-musical' and often distorted, repetitive, percussive sounds of mechanical, electric and industrial machinery" (Collins 13). Industrial music uses electronic music technology to capture other features of the contemporary urban soundscape as well—sampling sirens and traffic, for example (Dery, *Escape Velocity* 80). Collins has argued that industrial music's use of non-pitched noises and non-musical sound effects—including buzzing,

clanking, thumping, beeps and explosions—connotes threat, violence, death and darkness (391). Other samples evoke the "sounds" of science fiction more so than modern technology and urban industrialism, suggesting notions of the alien or inhuman (Collins 398; see Sobchack 217-219 on "sounds" of science fiction cinema). Industrial music's sampling also alludes directly to dystopian sf films and horror movies, evoking the dark, futuristic, tense, terrifying or deadly contexts of the films with excerpts of sound effects or verbal dialogue (Collins 62). Metal bands who make use of sampling technology tend to turn to the same sources for their sonic palette, weaving the sounds of machinery, cities and science fiction or horror films into the fabric of their music.

While industrial and industrial-influenced metal make heavy use of digital instruments' harsher tones and potential, these genres do not completely reject the keyboard's softer connotations. Certain industrial subgenres, for example, take advantage of the synthesizer's melodic strength to produce short, repeating motifs, or a sustained tone that Collins calls the "celestial chorus" (Collins 81-82)—a sound that may suggest images of awakening; truth/lies; destruction/rebirth; the afterlife; the disembodiment of dreams, mysticism, travel; expanses of time/space; transitory states; and the "idea of there being something beyond" or of a transitory state—basically, "expansiveness and escape" (406-410). When contrasted with the "harsh sounds of industrial mechanisation," the celestial chorus may evoke a sense of hope, the potential of transcending beyond harsh, unpleasant reality (410-411).

Soft synthesizer motifs can also be heard in metal (see Walser 121), as can the celestial chorus, and their smooth timbres and melodic progressions offer a stark contrast to the harsher and more mechanical riffs of the extreme metal rhythm section, suggesting

that not all technology is threatening. These more subdued deviations from the oppressive connotations of metal's power may provide a source of hope by interrupting the persistent drive of what is, primarily, a relentless sonic machine. However, part of what prevents metal's oppressive power from becoming militantly pessimistic is the fact that such power is never entirely out of reach—the musicians appropriate power in order to represent it, and a certain amount of that power is also available to the listener. As Walser and others have suggested, one of the pleasures associated with listening to metal is the sense of bodily empowerment it offers (see Walser 2, 45-50).

The metal songs and albums I will be examining in the following chapters make use of many, sometimes all, of the conventions and techniques outlined above—in part simply because they are conventions, characteristics that artists, audience, media and industry expect to hear in metal music. But as techniques, the resultant sounds do not simply signify genre but evoke any number of more specific images and concepts, allowing the bands that make use of them to imbed social commentary, and often critique, within metal's musical texts.

All of the songs I analyze in this thesis belong to the category of music I have labelled science fiction metal, and many of them particularly rely on evocations of threatening technology, oppressive power, rationalized control and, as the next chapter illustrates, dystopia. But much of this music also offers moments of resistance, individuality or agency, freedom, escape and transcendence, and although many of the songs depict technology and technologized systems as a threat to humanity there are also more optimistic portrayals of the human/technology relationship, implying that it is not technology itself but its misuse that endangers human life and limits human potential.

As the above discussion has outlined, metal's low frequency volume and distortion combined with short, precise repetitive rhythmic patterns and melodic motifs of limited pitch range evokes oppressive systems of control, their technological character emphasized by electronic processing and samples of machines, cities, and "inhuman" science fiction sounds. In contrast, metal's representations of human agency, individuality, resistance, and liberation lie in stronger melodic lines, accents and rhythmic deviations, 'natural' or undistorted tones and, when present, displays of virtuosity, while elements like the celestial chorus can suggest escape, hope, and even transcendence.

This technologically-focused assortment of metal conventions and techniques—a 'semiotics' of metal sounds—has some applicability to the metal genre as a whole, but it has particular resonance for industrial-influenced metal and the industrial metal subgenre, and for the bands that I describe as *cyber metal*. I have adopted the term "cyber metal" from metal journalists and publicists to label metal music of a particular thematic direction and sound[5]—cyber metal bands tend to concentrate on dystopian imagery and the impact of advanced technology, and share an emphasis on heavy low-frequency power, repetition, anti-virtuosity, vocal processing and other electronic effects, and synthesizer and/or sampler use. While cyber metal lacks the presence and coherence of a distinct subgenre of metal, it unites bands such as Voïvod and Fear Factory, who blend the technological dystopia with a critical spirit that makes them prime examples of metal's critical dystopians.

By pursuing a critical reading of the sounds of metal music in the manner outlined here, while also taking into consideration the lyrics and artwork that accompany those

---

[5] See Berelian 123; Ristic 6; Roadrunner.

sounds, I believe it is possible to distinguish between celebratory and critical stances toward technological power and control. Collins argues that industrial music's reflection of alienation and dehumanization is often a "form of social critique" (13); I argue that metal is also capable of presenting dystopian imagery in a critical spirit, and that the sensory and bodily pleasures of metal music cannot drain the critical impulse, as the following chapters will demonstrate. The metal genre's pessimistic and oppressive sonic power aligns its music with the dystopian images of science fiction literature and film, but its empowering moments of rhythmic, melodic and timbral liberation can also offer the possibility of utopian dreaming, indicating the potential for hope and complicating any reading of science fiction metal as simply disaster-obsessed.

The following chapter examines the relationship between metal and science fiction within the context of a broader tradition of science fiction music and dystopian and technophobic thought, writing, and filmmaking. I will also begin to focus more on the role of lyrics and visual imagery, examining science fiction metal and its imbedded commentary and critique as part of a larger thematic trend of social consciousness within the metal genre.

Science Fiction Meets Metal, and Fears of High-Tech Systems Gone Awry

Science Fiction and Popular Music

The relationship between science fiction and popular music is a relatively uncharted area of scholarly exploration, but the existence of that relationship is, at least in popular discourse, fairly old news. Dave Marsh and Kevin Stein's *The Book of Rock Lists* (1984), for example, includes a category labelled "Great Science-Fiction Rock," and the songs it names, such as Sheb Wooley's "Purple People Eater" (1958), demonstrate that the union of sf and rock is nearly as old as rock and roll itself.[6] The internet also offers evidence of popular interest in the history of science fiction in music. A quick Google search for "science fiction music" produces a few results that highlight an overlapping area of science fiction fandom and popular music appreciation, turning up the *SF-references-in-music List*—a collaborative multi-genre listing of songs with science fiction, science fantasy or speculative fiction references or themes (Kulawiec)—as well as a *Science Fiction Resource Guide* page that includes links to sites dealing with filk music (Baden)—a style "premised on the substitution of words to existing songs with new SF themed lyrics" (Hayward 12).

The *SF-references-in-music List*, which covers music based on sf film or literature, songs with original sf narratives, and works that merely make reference to or borrow the terminology and imagery of sf, makes explicit the haphazard nature of science fiction and popular music's cross-breeding. Distinctions suggested on the site also point to the flexible and subjective definition of what qualifies as sf music—for example, the site's author excludes "filk or novelty records" from the list, and relegates artists such as

---

[6] See McLeod 339-341 on the contemporaneous development of space exploration, popular science fiction, and rock and roll.

Tangerine Dream and [Brian] Eno to a paragraph near the bottom of the page because several contributors "pointed out that 'sounding like SF' doesn't make it SF music" (Kulawiec). Yet privileging science fiction theme over sound overemphasizes the significance of lyrics for listeners to whom sound may be the defining element of a song.

While science fiction and popular music fans are willing to take a somewhat analytical approach to the subject of science fiction music, relatively little work has been done on popular sf music from an academic perspective. That pattern seems to be changing, and recent publications by both Ken McLeod (2003) and Philip Hayward (2004) offer useful introductions to the subject. Hayward's opening to *Off the Planet*, an anthology of critical essays on science fiction and music, provides a broad historical survey of music in science fiction and science fiction in music. McLeod's article, "Space Oddities: Aliens, Futurism and Meaning in Popular Music," proceeds in a similar chronological fashion but with a narrower scope, examining the use of "space and alien images" in popular music and relating that use to a sense of "alienation from traditionally dominant cultural structures" and "an artificial escape [...] into a utopian future" (353). Several other scholars, particularly in the field of popular music, have begun to acknowledge a relationship between science fiction and music, and while none of these texts, including Hayward's or McLeod's, devote much attention to the subject of this thesis—metal music's interaction with science fiction—their observations on the engagement of psychedelia, progressive rock, industrial music and early, or proto, metal with science fiction lay down some important groundwork, which will be useful to summarize briefly here.

Hayward, after working his way through science fiction soundtracks and sf music of

the first two-thirds of the twentieth century, spends some time on the "significant engagements between Sci-Fi and psychedelia" that took place in Western Europe in the 1960s and 1970s (16-18). Discussing Syd Barrett-era Pink Floyd, for example, Hayward comments on the band's "futuristic music" that, through the use of effects, "evoked the type of 'otherworldly' sounds associated with SF cinema scores in the 1950s and 1960s," but which "also made direct thematic allusions" to sf in songs such as "Interstellar Overdrive" (1967), "Astronomy Domine" (1967) and "Set Controls for the Heart of the Sun" (1968) (Hayward 16). Edward Macan refers to this trio of songs as pioneering works of the "space rock epic" (82), and Bill Martin echoes this "space rock" characterization, applying the label to Pink Floyd's first two albums (165).

McLeod also discusses Pink Floyd, but focuses on the band's post-Barrett progressive rather than psychedelic works, particularly *Dark Side of the Moon* (1973). Besides lyrics suggesting "the exploration of alien worlds of madness and drug-altered consciousness," the album uses synthesizers and "electronic recording techniques" to evoke sf imagery (McLeod 346). Deena Weinstein addresses the relationship of post-Barrett Pink Floyd with science fiction as well, arguing that, like E.M. Forster's technological dystopia "The Machine Stops" (1909), the band's Roger Waters-era works (1973-1983) "respond to the social isolation imposed by mechanized relations of modernity with an appeal to authentic communication and communion" (*Serious Rock* 11; see also Macan 78 and Weinstein, "Progressive Rock as Text").

Hayward and McLeod mention several other rock bands of the late 1960s and 1970s that were either influenced by science fiction and/or whose sounds reflected the imagery of sf, such as Hawkwind (Hayward 17, McLeod 346), King Crimson, Yes (McLeod 346)

and its keyboardist Rick Wakeman (Hayward 19), the Moody Blues (Hayward 16), Jefferson Airplaine/Starship (Hayward 18), David Bowie (Hayward 18, McLeod 341, 347), and collaborative projects featuring musicians such as Alice Cooper, John Entwhistle, or Alan Parsons (Hayward 19). Hawkwind reached directly into the realm of science fiction culture through collaborations with Michael Moorcock, "the most rock'n'roll of all sf writers," as did Blue Oyster Cult (Delville 65-66).

Martin remarks upon Jimi Hendrix's fascination with science fiction (82, 165), but saves his more extensive analysis of sf and popular music for the 1969 *In the Court of the Crimson King* album by King Crimson. Building upon Edward Macan's discussion of progressive rock's paradoxical preoccupation with a mythical/mystical past and a technological future (80-82), Martin identifies a strain of science fiction medievalism in progressive rock, akin to medieval sf literature such as Frank Herbert's *Dune* series (133-134). Martin suggests that *In the Court of the Crimson King* presents, rather than the "touchstone" of progressive rock's "utopian spirit," an atmosphere of "gloom, alienation, and dystopia" (160). Calling the track "21st Century Schizoid Man" "hard as nails" (156)—and noting that King Crimson guitarist Robert Fripp has referred to his group as "heavy metal" (157, 252)—Martin suggests the song is "an excellent soundtrack for the stories of Philip K. Dick" and an anticipation of William Gibson's cyberpunk fiction (156). He makes a similar allusion to cyberpunk while discussing the multi-movement piece "Karn Evil 9" from Emerson, Lake and Palmer's *Brain Salad Surgery* (1973), calling the music and its H. R. Giger-designed artwork a "protocyberpunk scene" (224).

According to Durrell Bowman, progressive rock's engagement with science fiction narratives and technological/sociopolitical themes represents some of the "most

memorable work" in the genre (184). Macan identifies *Brain Salad Surgery* as ELP's "most fully realized concept album," its "Karn Evil 9" the depiction of a "manipulative totalitarian society in which natural phenomena, spirituality, and human emotion alike have been crushed" by a tyrannical computer overlord, equating "modern bureaucracy with a soulless but ruthlessly efficient machine" (74). Van der Graaf Generator's "Lemmings" (1971) reveals a similar suspicion of technological progress and its "dehumanizing tendencies" (75), and Macan compares the "dark, brooding visions" of bands like Van der Graaf Generator, ELP, King Crimson, and Pink Floyd to the "spiritual bankruptcy" of T. S. Eliot's *The Wasteland* (1922), and the totalitarian near-futures of Aldous Huxley's *Brave New World* (1932) and George Orwell's *Nineteen Eighty-Four* (1949) (74).

Hayward states that rock's science fiction "concept album cycle culminated" in Queen's contribution to the feature film *Flash Gordon* (1980) and the album of the same name (19). "Culminated," perhaps, but a list of the top ten "Heavy Metal Concept Albums with SF Themes" from online science fiction magazine *The Zone* (Ramos) indicates that the practice did not come to an end with *Flash Gordon.* Although *The Zone* list's definition of metal, stretched to include bands like Hawkwind, Blue Oyster Cult and Rush, may be subject to argument, its descriptions of sf concept albums ranging in date from the late 1960s to 1999 indicate that the format did not die out in 1980.

Psychedelic and progressive rock musicians were not the only artists to explore science fiction imagery in the 1970s, and Hayward also discusses Kraftwerk in his overview of science fiction music for the band's "pioneer[ing of] a sound based on drum machines, moog synthesisers and detached vocal parts" (18). He notes that Kraftwerk's

album *Radioactivity* (1976) references science fiction and technology in its titles and lyrics, an aspect of the band that was "intensified" on *The Man Machine* (1978), "its accompanying single, *The Robots*," and the use of robotics in live performance (18). Known as "Krautrock," or by the more sf-inflected label "Cosmic Music," the "mechanised synthesizer sounds" of bands like Kraftwerk are often associated with early industrial music, and "some fans consider Kraftwerk to be the first industrial band" (Collins 119). The emerging industrial of the 1970s took music "out of the cornfields and into the factories" in "distinctly dystopian terms" (Collins 121-122). Using electronic instruments, power tools, scrap metal, and industrial noise, bands like Throbbing Gristle, Cabaret Voltaire and SPK created a neofuturist soundtrack for the high-tech urban landscape (Dery, *Escape Velocity* 81).

Fans and scholars alike have linked industrial music with cyberpunk fiction (Collins 93, 95)—Dery, for example, argues that bands such as Skinny Puppy, Front Line Assembly, and Front 242 express both a wariness and fetishization of technology in songs about "mind control and mechanical mayhem," sampling references to technology and destruction from movies like *RoboCop 2* (1990) (Dery, *Escape Velocity* 80-82; see also McLeod 350 and Novotny 102, 113-118). Dery makes a claim for the right of "techno-rockers" to appropriate "the 'cyberpunk' moniker" because of their working methods—they "compose and perform patched into cybernetic nervous systems whose ganglia are 'interactive music workstations'"(*Escape Velocity* 76)—and their imagery—"cyber-rock uses factory clangor as an ironic metaphor for an information society whose technological totem, the computer, resists representation" (81).

Metal's engagement with science fiction overlaps with that of psychedelia, progressive rock and industrial music, in part because of the impact these genres have exerted on the development of metal—early influence in the case of psychedelic music, cross-fertilization in the case of prog and industrial. The relationship also arises out of common concerns shared by artists writing and performing in each of these musical forms—particularly the potentially dangerous power of technology and dehumanizing effects of cold, mechanized and ultra-rationalized systems that use technology as a means of exerting oppressive control. Science fiction has not provided the predominant inspiration for metal musicians, but science fiction-related subjects and/or imagery have surfaced in metal since its early incarnations, particularly in subgenres such as progressive metal and thrash metal, and eventually in the hybrid genre of industrial metal as well. To introduce my discussion of metal's historical relationship with sf, I will turn to one of Ramos's top ten metal concept albums with science fiction themes—Rush's *2112* (1976), a release that is arguably the first heavy metal concept album, although its status as metal is as arguable as its position as first.

Science Fiction and Metal Music: A Historical Overview

Bridging the divides between progressive rock, arena rock and heavy metal,[7] Canadian group Rush was one of the first bands to attempt a sustained treatment of science fiction themes mixed with metal music. On the 1976 album *2112*, a multi-part

[7] Walser states that Rush has more often been labelled metal by "outsiders" than by metal fans (7); Bowman labels Rush "progressive hard rock" (189), but notes the use of metal in the band's music (194) and refers to its "fusion of power and violence from the traditions of hard rock and heavy metal with elements such as structural complexity and large-scale cyclical construction from the tradition of progressive rock" (201).

composition entitled the "2112 Overture" depicts a futuristic dystopia ruled by a totalitarian interplanetary government called the "Solar Federation" (Rush; see Bowman 194 and Hayward 18). Rush, inspired to a degree by Ayn Rand's *Anthem* (1938) (Bowman 192-200), describes a theocratic society where a group of priest/scientists control equality, "dispens[ing] culture" "[f]rom their computerized headquarters" (Weinstein, *Serious Rock* 15; see also *Heavy Metal* 124). A dark, starry sky decorates the upper background of the album's cover, and a prologue printed in the liner notes introduces the science fiction narrative, which Rush sonically sets up with several seconds of "spacey" sounds—whirring, blips and bleeps of different frequencies and volumes, suggestive of the electronic effects associated with 1950s science fiction films. Electronic sounds and effects soon give way to the album's rock instrumentation, occasionally returning to remind the listener of the futuristic setting. Rush tends to evoke the controlling force of the priests with metal passages—a "shrieking vocal style," "limited pitch range," and "continuous" patterns (Bowman 194)—and uses the "Western major-minor tonality" of a solo guitar and a more "normal" vocal range to represent the narrative's "individualist hero" (196).[8]

While *2112* may be the first sf metal concept album, Rush was not the first band to pair science fiction with hard rock or metal, and sf is wound up even in metal's founding moments. Black Sabbath more often provokes mentions of the occult (Christe 4; Walser 8, 10) than sf, but the band has recorded several songs that draw upon science fiction imagery. The album *Paranoid* (1970) includes the track "Planet Caravan," which refers to interplanetary travel and uses space-related terminology—"orbit," "universe," "stars,"

[8] Rush's next album, *A Farewell to Kings* (1977), also explores individualist ideology through science fiction narrative in the song "Cygnus X-1" (Bowman 213).

"the earth"—demonstrating a reliance on reverb, echo and other effects to suggest off-planet images. On the same record, "Iron Man" stands as an early example in metal of what Walser refers to as the "armorized and metalized male bod[y]" (116), a cyborgian figure that shows up in works by bands such as Judas Priest as well (Walser 164). Opening with an electronically distorted voice that announces, "I am Iron Man," the song relates the tale of a man of "steel" who "travelled time for the future of mankind" (Black Sabbath, *Paranoid*). Another cut off the same album, "Electric Funeral," warns of the coming "atomic tide" and includes a mechanical voice repeating the phrase "Electric Funeral" around the three-minute mark, sounding much like an automatic alarm system. Several phrases in the song suggest nuclear destruction has already arrived—"radiation minds decay," "dying world of radiation"—and with the line "robot minds of robot slaves lead them to atomic rage" the lyrics indicate that technology has played a significant role in this destruction" (Black Sabbath, *Paranoid*).

One year later (1971), Black Sabbath's *Master of Reality* featured "Into the Void," which describes a rocket engine-powered flight into the stars from a polluted, war-ravaged Earth filled with "brainwashed minds" (Black Sabbath, *Master of Reality*). Although there is not much in the sound of the song to evoke science fiction, the mechanical monotone of Ozzy Osbourne's vocals most of the way through might be interpreted as robotic. "Children of the Grave," another track on *Master of Reality*, is not explicitly science fiction, but returns to the idea of "atomic warfare" (Weinstein, *Heavy Metal* 42). The song's insistent rhythm takes on a militaristic quality, particularly in the bass and drums, but in its final 50 seconds it comes closer to the sound of sf, when eerie

sweeping echoes and murmurs follow an explosive rumbling, mimicking the aural ambience of a post-apocalyptic scene.

David Szatmary suggests that the early metal played by bands such as Black Sabbath "reflect[ed] the militant mood of the times" with its "loud, explosive" sounds (182). While one might disagree with his suggestion that early metal was divorced from psychedelia,[9] the militant times of the late 1960s to which he refers—increasing violence surrounding anti-Viet Nam war protests, violence on campus, race riots (170-174)—may well have contributed to the development of more aggressive musical styles, particularly in the case of late 1960s American rock artists such as Jimi Hendrix, MC5 and Blue Cheer (Szatmary 178-179; see also Weinstein, *Heavy Metal* 18). Although geographically removed from the political violence going on in the United States, British bands like Black Sabbath faced a grim enough environment at home. For example, Black Sabbath's four original members began life in Birmingham, England—"a crumbling factory town"— and "[came] of age in the years following World War II [...] surrounded by the bombed-out rubble left by massive Nazi bombing raids" (Christe 1). Metal music coalesced in an environment where the failure of technology's potential and the grimness of military power lay apparent.

Black Sabbath was not the only early metal band out of the U.K. to delve into science fiction. Deep Purple, for example, released a song called "Space Truckin'" on its *Machine Head* album (1972). The track is loaded with space imagery: references to Venus, Mars, the Milky Way, the stars, and our solar system abound. Deep Purple was one of the first heavy metal bands to highlight keyboard technology in its music, but

---

[9] See Walser 9, Weinstein, *Heavy Metal* 16-18.

pursued a fairly traditional organ sound rather than technological or futuristic experimentation. Nevertheless, this 'road song removed to interplanetary freeways' demonstrates a similar, if less desperate, desire to escape into the stars as Black Sabbath's "Into the Void."

In the 1970s world of American hard rock, the band Kiss followed (though probably unintentionally) in the steps of jazz/Afrofuturist musician Sun Ra in uniting science fiction cinema and popular music, starring in and providing the music for the film *Kiss Meets the Phantom of the Park* (1978).[10] Kiss's silvery costumes, makeup, and personae (particularly "The Star Child" Paul Stanley and "Space Ace" Frehley) already evoked science fiction by this time, capitalizing on the alien imagery/glam rock combination of David Bowie's Ziggy Stardust period.[11] All four band members appeared in the film as superior beings from another planet, battling robot clones and a mad scientist—characters pulled from the storehouse of familiar sf iconography (Telotte 4). In the following decade, novelty metal act Gwar took on the role of "interplanetary warriors, descended from aliens stranded in Antarctica" (Huey, "Gwar"), and the band eventually starred in its own low-budget science fiction home video. There is more humour than sf in the band's song lyrics, but the members perform as aliens in their live show as well as in the film, "with the help of foam rubber, latex, and untold gallons of fake blood and other stage ooze" (Christe 301). Gwar's sf-flavoured home video, *Skulhedface* (1994), features the "dastardly plot" of an evil [alien] doctor" to "homogenize all humanity" (Tyler), as well as some comically low-budget special effects.

---

[10] See Zuberi on Sun Ra's involvement in the 1972 "low budget musical Science Fiction film *Space is the Place*" (77).

[11] For more on Bowie and science fiction see Hayward 18 and McLeod 341)

During the 1980s, the seemingly random science fiction references in a haphazard collection of hard rock, progressive and heavy metal music began to gather into distinct sf strains within certain subgenres of metal. "[T]echnological science fiction imagery" survived the narrowing of metal's visual "code" in the late 1970s (Weinstein, *Heavy Metal* 29) and remained an accepted subject for metal lyrics as well. Yet with pop metal groups like Aerosmith, Kiss, Bon Jovi, or Van Halen emphasizing "love and lust" (Weinstein, *Heavy Metal* 46-47), it was the noisier and more transgressive bands that were more likely to pursue threads of science fiction, particularly the thrash and speed metal artists that specialized in themes of "chaos" (Weinstein, *Heavy Metal* 50).

Chaos and science fiction merge in the dismal visions of many underground 1980s metal bands, whose works describe future worlds characterized by constant surveillance, totalitarian governments, or nuclear apocalypse. Although metal's strains of violent pessimism might be interpreted as simply a manifestation of the musical genre's preoccupation with apocalypse and chaos in general (see Weinstein, *Heavy Metal* 38), several artists have displayed a specific interest in the cataclysmic potential of scientific and technological development. Bands such as Anthrax, Nuclear Assault, and Megadeth have written lyrics focusing "on the bleak but concrete horrors of the real or *possibly real world*: the isolation and alienation of individuals, the corruption of those in power, and the horrors done by people to one another and to the environment" (Weinstein, *Heavy Metal* 50, emphasis added). It is metal's portrayal of possibly real worlds, the crafting of futuristic dystopias, that brings chaos-oriented metal into the realm of sf.

By 1991 metal had produced numerous songs expressing a "social consciousness" or a concern for "social justice" (Friesen and Helfrich 269-271); Testament's "Greenhouse

Effect," for example, describes the "environmental holocaust" caused by the burning of South American rain forests (*Practice What You Preach*, 1989; see Epstein and Pratto 74, Weinstein, *Heavy Metal* 51). Themes of oppression, "escape," and "loss of control" are also common in metal lyrics, (Friesen and Helfrich 269-270), and when the objects of attack are oppressive institutions, harmful lifestyles, and unpleasant social environments, these songs can shift from expressions of personal struggle to commentary on present and future dystopian societies. Harrell suggests that extreme metal songs, in particular, are "diatribes of modern corruption," denouncing the debasing influence of "massive corporate businesses," gang violence, and "the horrors of war" (96-97).

While thrash and speed metal are two of the subgenres most closely associated with death and destruction, the subject of chaos is not confined to any one variety of metal. As Walser observes, "The dark side of metal is intimately related to the dark side of the modern capitalist security state: war, greed, patriarchy, surveillance, and control" (163). Bands outside of the speed/thrash underground, such as the British traditional heavy metal group Judas Priest (Weinstein, *Heavy Metal* 7-8) also address dark and chaotic themes (40-41). Judas Priest's music can be considered "quintessential metal," emerging from psychedelic origins in the early 1970s (17) and into the realm of classically-influenced metal in the 1980s (Walser 66). Due to the band's continuing success during the rise of the "new wave of British heavy metal" in the late 1970s/early 1980s (Walser 13-14), Judas Priest shares with "new wave" bands like Iron Maiden and Motorhead (Walser 12) partial responsibility for influencing the development of thrash and speed metal a few years later (Weinstein, *Heavy Metal* 49), and is often more closely aligned with the darker visions of thrash than the "Dionysian" imagination of lite metal (47).

Judas Priest's dark or chaotic lyrics range through subjects like murder (Weinstein, *Heavy Metal* 40), hell, and "Breaking the Law" (41), but the band takes a science fiction-influenced approach in the song "Electric Eye" (*Screaming for Vengeance* 1982), which describes a future of constant surveillance and personifies the requisite technology—specifically a government "spy satellite" (Walser 163). The "Electric Eye" promises to "keep the country clean" (Judas Priest, *Screaming*) yet vocalist Rob Halford switches from conveying this "official and public" persona to a "sneering," "taunt[ing]" exposure of the technology's covert threat (163). The eye's protectiveness takes on sinister overtones as it explains that "there is no true escape" from its constant but unfelt probing into people's so-called "private lives" (Judas Priest, *Screaming*). The conventional "support and resonance of studio effects" help legitimize the more "measured, mid-range singing" Halford uses when presenting the eye's public image, contrasting with the higher, "slightly crazed tones" he uses in the more threatening sections (Walser 163). Yet these latter tones are not natural-sounding in their nakedness and a slight distortion of Halford's voice provides an aural layer of technological personification to further emphasize the song's subject matter. Apart from the song's lyrics and Halford's voice, Walser also notes a relationship to sf in its conclusion, which culminates in "feedback and echo, like a science fiction movie soundtrack" and brings to a close the band's evocation of "a modern technological environment of high-tech energy and conflicts" (164).

Later Judas Priest works that engage with science fiction include "The Sentinel" (*Defenders of the Faith*, 1984), which features a Terminator-like character, and the album *Painkiller* (1990), which deals with "anxieties about the collision of human beings and

technology" (Walser 164). The title track, "Painkiller," for example, describes a character that is "half man and half machine" (Judas Priest, *Painkiller*), and "Metal Meltdown" addresses the "dangers" and "seduction" of technological power (Walser 164). Beyond the unnatural quality of Halford's singing, some high-pitched metallic squawks from the guitar, and the additional electronically produced sounds used during the song's main break, "The Sentinel" tends to evoke a sense of general aggression more than sf-specific sounds. "Painkiller" and "Metal Meltdown" are also more sf in theme than sound, but both make use of electronic effects—suggesting explosions, the hum of machinery, thunder—and, as the band's heaviest record up till that time, *Painkiller* features frequent extended bursts of rapid machine gun-like guitar riffs that are particularly well-suited to mimic the high-tech artillery of war. Walser observes sf-related elements in Judas Priest's live performances as well, which emphasize technology with "computer-controlled laser beams" and similar effects (164).

Progressive metal of the 1980s also turned to science fiction for inspiration, a trait the music inherited from progressive rock, along with the use of the concept album or song cycle form.[12] Progressive metal lyrics, in general, tend to deal with "philosophical/ reflective themes, combined with political or social consciousness" (Friesen and Epstein 10), and these tendencies inform the subgenre's engagements with sf.

On the 1984 album *The Warning*, prog metal band Queensrÿche takes Judas Priest's concern with government surveillance technologies to the next level, explicitly linking technology to corrupt government control in the future dystopia of "NM 156." Although

[12] In metal music, the concept album form is not restricted to the progressive subgenre; Ramos's list of heavy metal concept albums includes examples from both progressive metal, power metal, and other metal subgenres.

Friesen and Epstein mention Queensrÿche in relation to "mystical or supernatural themes" (10), politics and technology seem at least as prevalent in the band's lyrics. "NM 156," for example, talks about "one world government" in a time when "free thinking" is "not allowed"—a familiar dystopian scenario (Queensrÿche, *Warning*). In this world humanity is subject to "social control through population termination," and "microchip logic" rules, its demands carried out through a sentient tool plagued by its own "man/machine imperfection" (Queensrÿche, *Warning*). The song begins with a series of electronically produced sound effects, includes lines spoken by a machine-like voice, and limits vocal melody to the human perspective of the choruses while pursuing a near-tunelessness in the machine-centred verse lines. The album cover emphasizes the idea of technology as threat with its central image of a metal-cloaked face, green lasers shooting out from its eyes, and its only strongly humanoid element a screaming mouth.

A later Queensrÿche concept album, *Operation: Mindcrime* (1988), explores similar themes of social and political control, humans serving as tools for a hidden system of power, and technoscience's capacity for mind manipulation. *Operation: Mindcrime* is a "science-fiction-influenced mini-opera" (Christe 230) with allusions to Orwell's *Nineteen Eighty-Four*.[13] Although there is little on *Operation: Mindcrime* that is clearly futuristic, the near-future or alternative world it describes clearly springs from the dystopian tradition. The song "Revolution Calling," for example, confronts the issue of government corruption (Epstein and Pratto 74), while the title track alludes to conspiracy and coercion, focusing on the use of drugs to turn otherwise ordinary (if addicted) individuals

[13] Ramos also links the album to Huxley's *Brave New World*, and Yevgeny Zamyatin's *We* (1924).

into death-dealing tools of an underground "system" (Queensrÿche, *Operation: Mindcrime*).

War, destruction, anarchy, corruption through power, confusion, chaos, armament, and "technology gone awry"—these are all themes that show up in the works of bands like Judas Priest and Queensrÿche, but Harrell particularly associates this list with thrash metal (93).[14] Within the rather broad domain encompassed by the above themes, several 1980s thrash metal bands have looked toward our future and narrowed the concept of chaos down to a single source, attributing humanity's destruction to nuclear warfare. For example, the song "Aftershock" by Anthrax (*Spreading the Disease*, 1985), though perhaps more warning than pure science fiction, jumps forward to a day when "[w]hite hot clouds fill the sky," when "the red flare [is] blasting hot air" and "[t]here's no place left to hide" (Anthrax). Harrell associates extreme metal's fascination for "Armageddon, apocalyptic plagues, [and] nuclear destruction" with its "dependence on Christian imagery" (94), yet lines such as these seem as much, if not more, concerned with the threat of science and technology than with impending religious doom.

Nuclear Assault, as the name suggests, is another 1980s thrash band that has concerned itself with atomic devastation. On the 1986 album *Game Over*, Nuclear Assault describes "[t]he end result of a Nuclear War": the "whole world's destroyed," the air is "poisoned," and the only things left crawling are "mutants" (Nuclear Assault, *Game Over*). The same album includes a track simply titled "Nuclear War," providing a slightly

---

[14] Although Harrell prefers the term "death metal" to "speed metal" or "thrash metal" (91), the bands he discusses – Metallica, Slayer, Megadeth – are more commonly labelled speed or thrash (Walser 14; Weinstein, 2000, 48-52), and the label "death metal" is generally reserved for the more extreme underground subgenre that emerged in the late 1980s which includes bands such as Death (Weinstein, 2000 51). See also Purcell (2003).

different futuristic vision of a time when "the final war" has come and "all are dead / except for the machines" (Nuclear Assault, *Game Over*). Heading in a slightly more optimistic direction, Nuclear Assault released *Survive* in 1988, which featured songs like "Rise From the Ashes," a first person account from a survivor of "the final war" (Nuclear Assault, *Survive*). To call the song optimistic is to stretch its potential for suggesting hope, though: few people are actually left alive to awake to a "world in ruins," and the lyrics imply that new beginnings will inevitably lead to the same catastrophic conclusion over again.

These songs by Anthrax and Nuclear Assault make no obvious effort to sonically emphasize their futuristic settings, but thrash's "'machine gun' rhythm" (Harrell 93), "frenetic aggressiveness," "menacing growl[s]," "speed, noise, and violence" (Walser 14) are well-suited to suggest images of destruction, including nuclear warfare, and individual touches, like the explosion-mimicking guitar solos in "Nuclear War," contribute to the effect. Thrash album artwork often relies on similar concepts, depicting images of destruction and threatening technology. The cover of *Spreading the Disease*, for example, displays a tortured-looking man on a table flanked by two people in full protective suits and gas masks, one running what appears to be a Geiger counter over his body; he is, perhaps, a casualty of nuclear attack. *Game Over* and *Survive* are more explicit in their visual references to nuclear technology, portraying a mushroom cloud and overflowing nuclear reactors, respectively.

Anthrax and Nuclear Assault were not the only thrash bands to delve into the subjects of nuclear warfare and post-apocalyptic worlds, and in 1988 Megadeth joined in, offering its own prediction of the nuclear destruction caused by World War III with "Set the

World Afire." Opening with the sound of a falling and exploding bomb that cuts off a sample from an old tune,[15] the track looks forward to the year 1999, and in true dystopian fashion, describes a world severely damaged by human strife (Megadeth, *So Far... So Good... So What?*). "Red flash, clouds choking out the morning sky," vocalist/guitarist Dave Mustaine begins, and his vision of the future involves "rubble and ruins," "distorted figures," and weeds now "grown to vines" (Megadeth, *So Far... So Good... So What?*). "Lethal energy has "melted" bodies like "candle[s]," and "the final scene, a global darkening" is upon us (Megadeth, *So Far... So Good... So What?*).

McLeod mentions Megadeth's "Hangar 18" (*Rust in Peace*, 1990) in the context of "alien cover-up" songs that reflect a "heightened suspicion of government" (352), but the band's depiction of dystopian futures may be its strongest tie to science fiction. Megadeth returns to the subject on *Rust in Peace* with the songs "Dawn Patrol" and "Rust in Peace...Polaris." The former track depicts a world with a rising "thermal count," "more air pollution warnings," "nervous systems [that] jerk" (a line delivered with a stuttering simulation of that jerkiness), and a "wrecked" environment, and its final observation indicates that we humans will "end our lives as moles in the dark of dawn patrol" (Megadeth, *Rust in Peace*).

The following track, "Rust in Peace...Polaris," personifies a nuclear weapon, evoking "the horror of nuclear holocaust" through the voice of the "weapon of 'defense' itself" (Walser 158). For most of the song the weapon is merely prepared to strike, but the chorus describes the action as the bomb explodes—"I spread disease like a dog / Discharge my payload a mile high / Rotten egg air of death wrestles your

---

[15] The sample features a crooning voice singing the opening title line of "I Don't Want to Set the World on Fire," recorded by The Ink Spots in 1941.

nostrils"—while the quickly descending guitar lines at the end of the chorus seem to offer a cruel caricature of a falling bomb (Megadeth, *Rust in Peace*). The song ends with an enigmatic line—"Eradication of Earth's population loves Polaris"—that suggests humanity's passion for the technology of warfare will be the cause of its own destruction.

Thrash musicians of the 1980s did not produce such bleak visions of the future in a vacuum. Science fiction cinema of the same period produced similar images, representing "post-Apocalyptic worlds" in films such as the *Mad Max 2: The Road Warrior* (1981), *Mad Max Beyond Thunderdome* (1985), *The Terminator* (1984), and *Terminator 2 : Judgement Day* (1991) (Hayward 22). Laying the blame for mass destruction on atomic disaster, apocalyptic and post-apocalyptic thrash shares with many sf films a heightened awareness of "nuclear anxiety" and the "fear of nuclear war" (Wood 168), also present in post-World War II post-apocalyptic sf literature, from earlier works such as Walter M. Miller Jr.'s *A Canticle for Leibowitz* (1959) (see Hillegas 173; Weiss 37) and L.P. Hartley's *Facial Justice* (1960) (Hillegas 149) to more contemporary novels such as James Morrow's *This Is the Way the World Ends* (1986) (Weiss 37).

With "the invention of the atom bomb and the arms race that followed the Second World War" demonstrating humanity's development of ever more effective military technology (Weiss 36-37), history could not have done much to allay such fears. The North American political climate of the 1980s could not have helped either, between the Cold War and a president (Ronald Reagan) who seemed, at least in "the early years of his tenure," willing to consider "limited nuclear war[fare]" (Ryan and Kellner, *Camera* 216). The following years offered only a short respite of post-Cold War calm before Allied forces engaged with Iraq in the Middle East, reviving talk of chemical weapons and

adding a new connotation to the phrase "weapons of mass destruction." In such an environment it would be surprising if images of nuclear apocalypse did *not* infiltrate society's artistic and cultural productions.

Beyond Our Control: Corporate Capitalism and Technology Gone Bad

Beyond the threat of atomic destruction and the Reagan "war machine" (Moylan 184), other aspects of the social, political and economic climate may have contributed to concerns about civilization's future, both in society and in its cultural productions. Social and economic crises (Franklin 20), environmental disaster and declining "social wealth and rights" (Moylan 184) characterized the 1970s and1980s. A "new hegemonic constellation" supporting transnational capitalism and right-wing ideology helped shift American and Western European government interests toward security rather than economic and social conditions, and exploited the profitability associated with new technological advancements (Moylan 184).

Unsurprisingly, an overwhelming pessimism about the future infused science fiction cinema during this period, transforming dystopian visions from "displaced symbols of cultural anxiety" to open proclamations that such "dismal futures" derive from tendencies already present in society (Franklin 20). H. Bruce Franklin credits the "pot-holed streets, sleazy porno districts, decayed public transport, dilapidated small businesses, cockroach-infested housing, violence, and squalor" of 'real world' cities as inspiration for the decayed urban future in sf films of the same era, such as *Escape from New York* (1981) (23).

Working from a similar premise, Thomas Byers sees, in films such as *Alien* (1979), *Blade Runner* (1982) and *Star Trek II: The Wrath of Khan* (1982), futuristic visions that extrapolate the "possible consequences " of "contemporary trends"—specifically the rise of "high-tech corporate capitalism" and its impact on individual lives (39). All three pictures were released "during the explosion of popular interest in computers, high tech industry, and genetic engineering," but while *Star Trek II* "affirms… the bourgeois patriarchal structures of power" (45), *Alien* and *Blade Runner* "warn us against a capitalist future gone wrong" (39).

Arising out of the same socioeconomic climate, cyberpunk literature opts for a "deeply negative" take on "the brave new world" of transnational capitalism (Moylan 197). Cyberpunk conveys the "monstrousness" and inhumanity of corporate economic systems with narratives in which "multinationals own everybody, or nearly everybody" (McCarron 271). Novels such as William Gibson's *Neuromancer* (1984), *Count Zero* (1986), and *Mona Lisa Overdrive* (1988) depict capitalism as "brutal and rapacious," as does related feminist sf like Marge Piercy's *He, She and It*, which contrasts the brutality of "unchecked capitalism" against the peacefulness of "Utopian" enclaves (McCarron 270).

Gibson's *Count Zero* merges capitalism and advanced technology to dehumanize both "The Corporation" and the "exceedingly rich" in contrast to the individual humans who work against or outside the corporate system (McCarron 271). Science fiction films highlight the relationship between capitalism and technology as well, but in *Alien* and *Blade Runner* the emphasis shifts from the inhuman nature of "corporate technocracy" to the fact that these corporations produce and value humans who become increasingly cold

and mechanical until they are indistinguishable from machines; thus machines seem increasingly human by comparison (Byers 40-45).

Ryan and Kellner suggest that the representations of technology found in *Blade Runner* offer an "alternative" perspective that challenges the conservative ideology of more technophobic films such as *THX 1138* (1970) and *Logan's Run* (1976) (49, 51). Using technology as a metaphor for everything that threatens 'natural' social arrangements, technophobic movies tend to portray technology as artificial and mechanical, and as a threat to individuality (49). The fears of technology that surface in sf films may also arise from the contradiction between traditional values and the "hypermodernisation" that results from conservative economic strategies emphasizing efficiency and profits—the replacement of human labourers with machines, the shift from industrialized manufacturing to " 'information age' production" (53).

In a hypermodernized, technologically advanced culture, power belongs to those who control the technology. Langdon Winner identifies Francis Bacon's *New Atlantis* (1627) as the "first modern vision of a technocratic society" (135), where "[p]ower is ultimately the power of nature itself, released by the inquiries of science and made available by the inventive, organizing capacity of technics," and where that power lies in the hands of an "aristotechnocratic" elite (138-139). Similar themes run through the works of H.G. Wells, who believed that the "conditions of the modern age would require rule by a relatively small, cohesive group of highly trained technicians" (Winner 142).

Initially Wells feared "the evil this kind of government might bring to the world," and demonstrated that pessimism in early scientific romances such as *When the Sleeper Wakes* (1898-1899) (Winner 142), and *The Time Machine* (1895) (Hillegas 17).

Eventually these fears transformed into a belief that the rise of technocracy would be "a blessing," a sentiment captured in later texts such as *A Modern Utopia* (1905) (Winner 142, see also Hillegas 60). In dialectic opposition to Wells's utopian (and technophilic) imagination, works like Zamyatin's *We* (1924), Huxley's *Brave New World* (1932) and Orwell's *Nineteen Eighty-Four* (1949), capture the fear and the horror of a technologically advanced society where the state uses technology as a tool for surveillance and control (Hillegas 3).

These twentieth century dystopias are part of a technophobic tradition reaching back to Samuel Butler's *Erewhon* (1872); Nicols Fox argues that Butler "saw the machine as frankly dangerous, with the clear potential, even then, to take over" (Fox 260; see also Hillegas 90). Authors such as E.M. Forster carried fears of technological control into the twentieth century—in Forster's "The Machine Stops," technology rules a globalized, subsurface society of isolated individuals, although the machine of the title demonstrates no signs of sentient control or conscious intent. The danger posed by this machine system is in its complexity, which has exceeded humans' ability to understand, fix, or even maintain, and when it breaks down, the results are lethal for most of society (Fox 266-267; Moylan 118-120).

Technology, in Forster's story, offers more than bodily harm; it poses a psychological and spiritual threat as well (Hillegas 89-90). Like the high-tech societies portrayed decades later in *Alien* and *Blade Runner*, Forster's envisioned world devalues "[p]ersonality," and its "most desirable people are the most machinelike" (Fox 267). Other authors would also pick up on the potential life-draining effects of a technologically-advanced society, working, at least in part, from the notion that in giving

life to technology we give up some of our own vitality (Winner 34-35). Drawing connections between the imagined worlds of "The Machine Stops" and Kurt Vonnegut's *Player Piano* (1952), Langdon Winner argues that"[i]n the world of mechanical or electrochemical 'dystopia'" humans will have basically made themselves redundant:

> people would be left with absolutely nothing to do … [because] they have fabricated themselves out of any meaningful existence. Those who can find a function at all will have to take on the character of their own robots, for anything that does not conform to the design of technological utopia cannot operate, much less have any utility (33).

It is the technological efficiency of such worlds that threatens human vitality and individuality. Order and conformity rule, only the most machine-like humans successfully fit in, and totalitarian governments use technology as a means of oppression —or, as in the case of Philip K. Dick, "the modern economic system and its mechanisms of subject construction" suppress individuality with a "totalizing logic" (Moylan 174). Such fears spring from growing emphasis on rational, scientific thinking and increasing ubiquity of technology, particularly in the twentieth century. Thus Forster writes of a "totalizing administration that 'mechanizes' every dimension of daily life" (Moylan 111), a mechanization that will eventually lead to complete control (Hillegas 89). The totalitarian states of novels like *We* use technology to control their "slave citizens," conditioning them to obedience, eliminating freedom and crushing individuality (Hillegas 3) by reducing life to a "perfect mathematical regularity" (100). In Dick's *Martian Time Slip* (1964), the mechanization of society is more subtle; the government uses human-like

"teaching machines" to "mold" the first generation of Martian-born humans according to a limited model of "important and apparently universal social values" (Bukatman 52)

While the critiques in such texts may be attacks on capitalism, as in *Brave New World* (Moylan 111), *Blade Runner* or *Alien* (Byers 39), among others, technological dystopias can critique extreme socialism as well (Moylan 111), and whether the controlling system is communist or capitalist, technology is often a metaphor or symbol for the oppressive system of which it is merely a part. The "capitalistic and largely fascistic" technological societies of Dick's writing, for example, target forces of "instrumental reason" and their use of technology rather than attacking technology itself (Bukatman 53).

Fears of rationalized, technology-driven systems find expression in the depiction of society as a "vast mechanism" (Winner 280). A network of "interconnected technical systems" becomes a "Leviathan" with "a soul of its own" that is the result, not of design or planning, but of the connection of once individual parts (Winner 280). In a rational society, dominated by technologized systems, humans are threatened by their own tendency to abandon active control, "obey[ing] uncritically the norms and requirements of the systems which they allegedly govern" (29). We set the system up and let it run, but instead of shaping it to our needs, we, like the characters of many technological dystopias, adapt ourselves to conform.

The resulting anxieties about humanity's relationship with technology play out in dystopias that adapt technophobia to express a critique of human behaviour rather than fear of technology. *Player Piano*, for example, condemns the lawless "development and application of technology," not the actual machines (Hillegas 162). A similar condemnation of human decision-making emerges in films like *The Terminator* (1984),

which refrains from advancing an "'us against them,' man versus machine" argument (Penley 127). Ryan and Kellner refer to *The Terminator* as a conservative technophobic movie (53), but Penley argues that *The Terminator*'s portrayal of technology is more ambiguous: "While the film addresses an ultimate battle between humans and machines, it nonetheless accepts the impossibility of clearly distinguishing between them" (127-128). This ambiguity plays out in several ways; for example, the protagonists must themselves become "fighting machine[s]" and manipulate technology in order to survive (127). When the technology in *The Terminator* "turns noir," it is because machines can break down and can be used in ways not envisioned during their initial design, not because of "something inherent in technology itself" (127).

For many people, both the technophobic and the technophilic positions hold some degree of truth, combining in a "modern ambivalence" toward technology. We value a "technicized regime" as the "penultimate dream of our [Wellsian] science fiction and science fantasy," for example, but we fear slipping into the kind of uncalculated technocracy that could be brought on by "the enervation of politics and the rise of a technical elite" (Winner 140). Similarly, humanity continues to have "faith in the peaceful utility of science and technology," even while experiencing a "horror of modern science-based weapons in a re-arming world" (Braun 74). In literature and film, the horror has often won out, inspiring depictions of future totalitarian states but also producing nightmarish visions of disaster.

Fears for the future found expression in "an incredible flood" of anti-utopian books after World War II (Hillegas 147; see also Moylan 167) and in post-war science fiction films that manifest a grim and "enlarged" "imagination of disaster" (Sontag 215). A

"veritable explosion" of disaster-focused literature had appeared by the early 1970s, "expressing fear for the future well-being, even future existence, of mankind unless the developments of science and technology were bridled" (Braun 74) and seeing danger in the threat of nuclear war, overpopulation, environmental pollution, climate change, and diminishing natural resources (Braun 74-75, see also Weiss 36-37). Science fiction cinema revealed similar concerns "throughout the 1970s and well into the 1980s," particularly in films dealing with environmental devastation—"pollution, deforestation, the eradication of natural habitats, and the extinction of other species," as well as "threats to the human species" (Telotte 104).

Our modern "imagination of disaster" tends to focus on man-made, rather than natural, catastrophes, and our fears of "world war, nuclear holocaust, overpopulation, [and] ecological disaster"—whether valid, based on traumatic experiences or illogical phobias—are now global in scale (Barkun 201-204). Thanks to modern transportation, disaster can no longer be isolated to specific communities, and contamination can travel across the world by plane in a matter of hours (204). Communication technologies also "increase[e] the scope of disaster"—television spreads devastation by creating "vicarious experience," allowing people to watch and "experience" disaster as it happens (206). But "the end of the world as we know it" does not always entail mass destruction, and recent decades have seen an expansion of "the definition of 'apocalypse'...to include the conceptual apocalypse" as well as the "postmodern apocalypse, in which the nature of the end and, therefore, of all that has produced it are difficult if not impossible to define (Weiss 37).

One rapidly changing aspect of society and technology that has had the potential to end, or at least substantially change, the world we know without physically destroying it is the increasing ubiquity and compactness of technology in tandem with humans' continued and ever-growing reliance on it (Dery, *Escape Velocity* 4). The year that marked the end of the Cold War, 1989, was also "the first year in which computer networks came creeping out of technological obscurity to seriously menace the status quo" (Sterling 26). Through the encroachment of personal computers into people's homes beginning in the early 1980s, soon followed by widespread Internet access in the 1990s, we have been confronted by a new obsession with information and the shrinking and dematerialization of our technology—now software and minute circuitry rather than huge machines (Dery, *Escape Velocity* 3-6).

The promises of the "computer revolution," good and ill, have surfaced in our entertainment as well, in movies like *Total Recall* (1990) and *Lawnmower Man* (1992) that show the "futuristic sheen of virtual reality" (Dery, *Escape Velocity* 7; see also Telotte 118), and in the visions of cyberspace, technological developments, and "power struggles" of cyberpunk literature (Featherstone and Burrows 3). Cyberpunk's imagination of disaster left behind a fear of "nuclear Armageddon"—it did not happen—and concerned itself not with humanity's annihilation, but with the manipulation and replacement of organic surfaces and functions through aesthetic surgery, "biochip implants, upgraded senses and prosthetic additions" (Featherstone and Burrows 10-11). Addressing the breakdown of distinctions such as "organic/inorganic" and "human/inhuman," cyberpunk confronts some of the "troubling psychological, moral, and epistemological quandaries" inspired by the technology, economics and politics of

contemporary society (McCaffery 4-7), while the "high-tech paranoia" of works featuring "global computer hook-up[s]," "deadly [. . .] information agencies," and "conspiracy theor[ies]" attempts to "think the impossible totality of the contemporary world system" characterized by technologies of reproduction and decentred power networks (Jameson 575).

War machines, dehumanizing corporations, autonomous technology, global disaster, computer networks, and the redundancy, obsolescence, or replacement of humans thanks to machines and machine parts—these issues and the political, economic, social, cultural, and technological environment they arise from have provided several decades of fodder for science fiction literature, sf film, and sf metal. In such a climate, it is hardly surprising that a musical genre with a particular affinity for chaos would gravitate toward the darker implications of contemporary life, taking up dystopian threads from other sources and interweaving them with its own capacity for pessimism.

Metal Music, Dystopia and Critique

Just as metal's interest in science fiction goes back to the music genre's founding bands, metal's association with dystopian conditions can be traced back to its earliest moments as well. As Weinstein observes, "Heavy metal was born amidst the ashes of the failed youth revolution [of the 1960s]" (*Heavy Metal* 13), and the musicians of Black Sabbath named their band after a Boris Karloff horror film specifically as "a corrective to the 'peace and love' credo that permeated the youth culture at the time [1969]" (Weinstein, *Heavy Metal* 33; see also Harrell 97). Writing in 1990, Epstein and Pratto trace "themes of alienation and apocalypse" in contemporary heavy metal back to "Black

Sabbath as originators" (68; see also Bogue, "Violence" 99 and 113), and suggest that the overarching theme of many metal songs, often those that appear to be most offensive, has been "alienation and concern for the world that youth will inherit" (Epstein and Pratto 74).

Metal's ambivalent love affair with dystopia, apocalypse, disaster, destruction, oppression, and related dark visions of present and future worlds does not find expression in lyrics alone, as I have demonstrated in this and the previous chapter. Aesthetically, metal is well equipped to evoke dystopian images in sonic form, and its sheer aural volume (Friesen and Epstein 3; Walser 44-45; Weinstein, *Heavy Metal* 23) alone might be interpreted by the non-fan as catastrophic. Metal's "rhythmic intensity" (Friesen and Epstein (4)—"[h]ard-driving beats" and "speed and fast timing"—contributes to an atmosphere of energy and aggression (11). Combine that intensity with the low frequency "grunt" of bass guitar and drum, and guitars "tuned down a half-step or full-step lower than standard" (11), and metal "presents …an open affront to civility, pleasantness and order" (11). "To the uninitiated, listening to even a few bars of thrash," for example, is "a miserable, unpleasant experience" (11). Yet extreme metal's anger is part of its appeal (Harrell 97). As music genre that evokes power and aggression, that is uncivilized, violent and intense (Purcell 9; Walser 14; Weinstein, *Heavy Metal* 23) metal is ideally placed to represent a dangerous dystopian world.

In some cases, metal's chaotic visions of the present and future have been described as anti-utopian rather than dystopian. Harrell, for example, observes that "[r]ather than naively calling for a utopian peace, [extreme metal] speaks to the frustrations felt by young people as they struggle against the inherent weaknesses of institutional, highly

managed societies" (Harrell 97). Friesen and Helfrich argue that the oppressive themes in metal songs from 1985 and 1991 were rarely "relieve[d]" by "real solution[s]" for putting an end to oppression (Friesen and Helfrich 269), and although they do not discuss metal in terms of utopia or dystopia, their findings suggest metal shares the despair, cynicism, or resigned pessimism that Moylan attributes to anti-utopian and pseudo-dystopian forms of literature (Moylan 195).

Metal's kinship with anti-utopia finds support in Idelber Avelar's suggestion that "heavy metal experiences progress already from the point of view of its final failure" (132). In the perception of death metal, in particular, Avelar argues, apocalypse has already taken place (130), and metal portrays the world as frozen in that moment of apocalypse because the genre is dedicated to a path of "suicidal negation" and a "strong refusal to affirm," which translates into an inability to offer alternatives or extended futures (132). According to Avelar, the "nihilistic messages" of death metal differ in effect from those of punk and lighter varieties of metal, because the music of death metal echoes the nihilism of the lyrics (134). "[T]he fast succession of repetitive movements in metal's distorted guitars emblematizes the annihilation of all extended temporalities and the apocalyptic canceling out of time," as does the exhausting replication between guitars and the bass/drums rhythm section (133).

Nevertheless, characterizations of metal as anti-utopian depend on fairly broad generalizations and leave little room for individual interpretation. Walser's and Weinstein's observations on heavy metal in general do not condemn the genre to unrelieved pessimism, finding in the music an expression of "utopian desires" (Weinstein 102) and an attempt to "imagine something better for the future" (Walser 171). Metal

musicians and fans have their own perceptions and interpretations of the genre's imagery and themes, and even the apocalyptic frenzy of death metal is often interrupted by more hope-inspiring interludes and sentiments. At the same time, the metallic chaos that might signify an intergalactic war for the average pop music fan could be a source of pure sonic pleasure for a metalhead who enjoys the intense sensations the music offers (Arnett 66-68). Metal's appeal lies in a variety of emotional and physiological factors, including its embodiment of freedom as well as power, its individuality and collectivity, interruption and perpetuation, escape and reintegration, and chaos and control (Friesen and Epstein 4-7; Walser 45-50; Weinstein, *Heavy Metal* 122).

If the metal genre offers both pessimism and pleasure, is it capable of critique? Is metal just simply "reflecting the mayhem and destruction" of the real world (Bogue, *Deleuze* 105)—taking inspiration from news stories on CNN (Harrell 98)—and demonstrating an uncritical "sensuous elaboration" like that of science fiction cinema (Sontag; Grant, "Sensuous Elaboration")? Or can science fiction metal music offer critical commentary on what it describes? If metal does offer some form of critique, as studies such as Walser's *Running with the Devil* have demonstrated, and as I have suggested here, is that "social statement [. . .] reduced to serving as background music for the 'mosh pit'" (Harrell 99)? I make no claims here about the reception and impact of metal's social critique, but I do argue that such critique exists, at least in specific cases. To demonstrate metal's critical potential, the following chapters examine key conceptual science fiction works by two different metal bands—they cyber metal of Voïvod and Fear Factory—seeking critique in the midst of pessimistic reflections, and moments of ambiguity and open-endedness that temper pessimism with hope.

Science Fiction Metal: The Emergence of Voïvod and Fear Factory

Amidst the array of metal bands incorporating science fiction elements into their music in the 1980s, French Canadian thrash metallers Voïvod emerged in 1983 (Langevin) with music that would quickly become the pre-eminent example of science fiction metal. Weaving sf themes, imagery, and narratives into its sound, lyrics, artwork and videos, Voïvod maintained its sf focus throughout the 1980s, even while experimenting with its sound. After toning down its science fiction elements in the early 1990s Voïvod aggressively revived them mid-decade, but in the meantime a new contender for the science fiction metal title arose—Los Angeles industrial metal band Fear Factory, performing a technologically oriented, sf inflected version of heavy music. Voïvod's and Fear Factory's approaches to science fiction are not identical, and an examination of their works reveals differences of outlook and priorities, but a significant common thread links these metal bands' use of sf to a longstanding tradition of dystopian literature and film. Setting sf narratives in futuristic and off-planet mirrors of our own world, Voïvod and Fear Factory interrogate humanity's relationship with technology and technological systems, pointing to contemporary problems in sf terms.

My thesis focuses on Voïvod's and Fear Factory's mid to late 1990s cyber metal works, but this chapter aims to situate these albums—Voïvod's *Negatron* (1995) and *Phobos* (1997) and Fear Factory's *Demanufacture* (1995) and *Obsolete* (1998)—within broader musical and cultural contexts, and as part of both bands' larger engagement with science fiction. Particularly the albums *Phobos* and *Obsolete* represent, for each band, a more developed realization of science fiction metal—both these records are sf concept albums, telling technological dystopian narratives through their lyrics and supporting

those narratives with technologically infused sounds. They are the culmination of each band's hybridization of extreme metal, digital music technology, and dystopian themes. It is important then to examine not just these albums but those leading up to them as well, to trace the bands' progression toward these explicit and multi-faceted expressions of science fiction and dystopia.

The time period in which Voïvod and Fear Factory released these records is also a factor in my selection of *Negatron* and *Phobos*, *Demanufacture* and *Obsolete* as the focus of my analysis. By the 1990s, the combined influence of industrial's anti-music and punk and hardcore's anti-virtuoso philosophies, now expressed through the stripped down sounds of grunge as well, contributed to a more repetitive and percussive, and less flashy, approach in metal performance. At the same time, the increasing popularity of grunge and industrial rock bands played a role in metal's declining commercial success. The shifting musical climate inspired many 1990s metal artists to pursue a slightly different path, a more "alternative metal" sound that focused less on virtuosity and soloing and made room for non-traditional metal instruments such as the synthesizer. While Voïvod and Fear Factory maintained roots in the metal scene through most of the 1990s, the music released by both bands at this time demonstrates the impact of alternative music and industrial, and thus explores new ways of depicting advanced technology and technologized systems through music.

Negatron and *Phobos* are also the product of a different incarnation of Voïvod, one without original singer Denis Belanger (Snake) and bassist Jean-Yves Theriault (Blacky). The three-person line-up on these recordings produced a sound and atmosphere distinct from anything Voïvod released before or after, despite the fact that the band's creative

core remained intact—in drummer/conceptualist Michel Langevin (Away) and guitarist/songwriter Denis D'Amour (Piggy). But the addition of Toronto-bred musician Eric Forrest on vocals and bass coincided with a renewed heaviness in Voïvod's music and more overt connections to industrial music. Musical shifts brought about business changes as well, as major label MCA freed Voïvod from its contract before the release of *Negatron*, and for the rest of the 1990s the band put out material through Hypnotic Records, an independent Canadian label (Barclay, et al. 164). Many metal fans also responded more coolly to Voïvod in the 1990s, a fact illustrated by the fan-voted *Top 500 Heavy Metal Albums of All Time*, which includes four Voïvod albums from the 1980s but none from the following decade (Popoff, *Top 500* 436). Some music critics have also expressed less than enthusiastic responses to the records; Essi Berelian, for example, calls *Negatron* and *Phobos* "pale shadows of their predecessors" (384).

For Fear Factory, the mid to late 1990s was a period of anticipation and increasing success. Unlike Voïvod, Fear Factory did not have a decade of metal stereotypes to shed, and the younger band's industrial infused metal immediately appealed to heavy music audiences looking for fresh sounds. *Demanufacture* brought Fear Factory more recognition and commercial visibility (including video airplay on *The Power 30*, the metal show on Canada's Much Music), and *Obsolete* achieved even higher levels of mainstream recognition and acclaim. This period saw Fear Factory emerge from underground obscurity to the visibility of *Billboard*'s charts, first as "Heatseekers" and later in the top 200 (All Music Guide, "Fear Factory"), and fans have since voted both *Demanufacture* and *Obsolete* into *The Top 500 Heavy Metal Albums of All Time* (Popoff, *Top 500* 429). Although the band released another sf-inflected album before a temporary

break-up and subsequent reformation (without founding guitarist Dino Cazares), the late 1990s remain the height of its engagement with science fiction music and concepts. *Digimortal* (2000) took Fear Factory even higher on *Billboard*'s charts (All Music Guide, "Fear Factory") but its sales were disappointing, and the album represented a step further away from the band's metal and industrial roots with its "pop potential" (Ingham 82).

This chapter sets up the groundwork for my analysis of Voïvod's and Fear Factory's mid to late 1990s albums by taking a look at both bands' histories and development. While providing an overview of their earlier releases, I explore the bands' ongoing relationships with science fiction and their places in the world of metal music, and acknowledge the impact of musical trends, technological developments, and sociopolitical and economic conditions. I have supplemented my descriptions and analysis with references to Voïvod's and Fear Factory's creative work and careers from several sources—including published and online interviews, album reviews, and my own interviews with members of both groups—to allow the artists' and their critics' voices to contribute to this critical examination.

Introducing Voïvod: The Flagship of 1980s Science Fiction Metal

In the 1980s, it was Montreal band Voïvod, as it crossed and recrossed the lines between thrash and progressive metal, that was arguably the metal act most strongly identified with science fiction. Biographies, articles and metal histories tend to reinforce the association, and science fiction-laden terms like "sci-fi" (Barclay, et al161; Fasolino; Garza 75), "cyberpunk" (Dome "Voivod"; Garza 75-76; Henderson 13; Jossa), "post-nuclear" or "post-apocalyptic" (Carson; Fasolino), and "futuristic" (Book and Prato;

Dome "Voivod"; Fasolino; Jossa) pop up repeatedly in descriptions of the band. Voïvod members acknowledge the relationship as well, referring to themselves as musicians from Mars (Henderson 13) and citing the influence of popular science fiction on their work, including the writing of Phillip K. Dick and films like *Blade Runner* (Langevin). Langevin admits,

> I think I was always obsessed with science fiction from the moment I saw the *Incredible Shrinking Man* when I was very young, because I just thought the [nuclear] concept was amazing. [...] And then shortly after I saw *The Day the Earth Stood Still.* [...] I thought it was great actually. So I really was interested in science fiction from that moment on, and I started going to [the] library to borrow these books about science fiction and I discovered the magazine *Heavy Metal* in the 70s, all cartoonists doing crazy sci-fi stuff (Langevin).

Background information related to the band and its members is also used to colour the Voïvod/technology/science fiction relationship. For example, Barclay, Jack and Schneider reflect on Voïvod's origins "in a Northern Quebec town that is home to North America's largest aluminum factory" (158) and quote Langevin stating that the nearby factory influenced the "sci-fi" in his early creative work (161). They also mention Langevin's abandoned "studies in nuclear physics" (159), and attribute the "comic books, horror, sci-fi and Tolkien" Langevin consumed as a youth for inspiring the invention of "his own 'post-nuclear vampire'" character (161). Straight out of speculative fiction, this "futuristic warrior entity called the Voivod" (Fasolino), would be the uniting concept for numerous Voïvod records.

After finding the word "voivod"—meaning "prince"—in the introduction to a French edition of Bram Stoker's *Dracula* (1897), Langevin used it to name his character and eventually his band (Langevin). While horror literature inspired the character's initial vampiric nature, it was the technology in Langevin's surroundings that influenced the artist to endow his creation with mechanical parts (qtd. in Dunn)—the Voïvod is a hybrid, cyborg-like figure, described as a "man-machine" (Theriault qtd. in Barclay, et al. 161), "a nuclear creature" prepared "for atomic fight" (Voïvod, *War and Pain*). Voïvod introduced the character on debut *War and Pain* (1984), an album that mixes "a crude, careening blast of youthful energy" and "prickly power-thrash" with "post-apocalyptic Mad Maxisms" (Fasolino), and Langevin's fear of nuclear war and "technology out of control" contributed to his concepts' post-nuclear setting—thanks to the impact of a documentary, *If You Love This Planet* (1982), and a television movie, *The Day After* (1983), that were both "warnings about nuclear war" (Langevin).

Voïvod's use of extended concepts and lyrical conceits points to the 1970s progressive rock that fed the musicians' early development (Barclay, et al. 158)—Langevin identifies the progressive rock of Rush, King Crimson and Van der Graaf Generator as influences alongside metal bands like Motorhead and Venom (Langevin). Voïvod paired such lyrical concepts with complementary sf-inflected artwork, infused with elements of Langevin's exposure to *Heavy Metal* and H. R. Giger's designs for *Alien*, among other inspirations (Langevin). Langevin "painted graphic images of future warriors and weaponry" (Carson) for the cover of *War and Pain*, and would decorate later albums with a range of machines, cyborgs, aliens and the interior of a spaceship.

Nevertheless, and despite early suggestions of what would become an enduring fascination with eerie sf-tinged effects, Voïvod's lyrics and music on *War and Pain* do not substantially differ from the chaotic sounds and words of many 1980s thrash bands. As illustrated in the previous chapter, other bands such as Nuclear Assault addressed the destruction of atomic warfare, and in fact, both Voïvod and Nuclear Assault composed songs called "Nuclear War." With similar techniques to those used by Nuclear Assault to unite text and sound, Voïvod brackets the main section of the song, and phrases like "[f]ast and pure desolation" and "hard and dry destruction / wet under the neutron rain," with highly distorted, reverb-drenched solitary guitar notes that evoke the unease of the song's descriptions of a post-apocalyptic world. Popoff notes the distinctiveness of the music's "accumulating claustrophobic effect" and "unearthly tension filled thrash" (*Top 500* 368), but suggests that War and Pain merely hints at the band's "cyborg proto-thrash agenda yet to come" (*Eighties* 401).

Voïvod's next album, *Rrröööaaarrr* (1986), delivered much of the same but with more technical proficiency (Berelian 383), this time offering up an enemy for the Voïvod (Korgüll the Exterminator), characterizing the Voïvod character as more "machine" than organic (Barclay, et al. 161), and decorating the album cover with one of Langevin's visions of a "mechanihell" (Popoff, *Eighties* 401). But on 1987's *Killing Technology* Voïvod's music began to move in a slightly more experimental direction, accompanying the exploits of the Voïvod—now "a cyborg in outer space" and the survivor of "multiple nuclear wars" (Carson)—with more technologized sounds. As the album's title suggests, technology is a major thematic pre-occupation of the release—lasers, computers, robots, circuits ("Killing Technology"), nuclear energy and mutant-forming meltdowns

("Overreaction"), medical experimentation ("Ravenous Medicine")—but the record also deals with totalitarian governments ("Order of the Black Guards") and even an abandoned prison space ship ("Forgotten In Space").

Langevin identifies contemporary events such as the Challenger explosion, the Chernobyl meltdown, and Reagan's Star Wars project as influences on the lyrics for *Killing Technology* (Langevin; Popoff *Top 500* 308). While the first records addressed the issue of nuclear war, by the time of *Killing Technology* Voïvod "had other technologies and other politics and new social subjects to talk about" (Popoff *Top 500* 308). "All this stuff started happening that pushed us into writing *Killing Technology*, which covered more than just nuclear war, but stuff that was also getting out of control" (Langevin). At the time, Langevin asserted that the members of Voïvod were "all into computers and future technology;" however, they felt that "the government [was] abusing technology by building more bomber planes and nuclear weapons" (qtd. in Connor).

Voïvod's relationship with earlier science fiction inflected music became clearer on *Killing Technology*, as the band allowed its progressive rock influences to "seep in" (Book and Prato) in the form of longer songs (Berelian 383) and "tight technical breaks" (Popoff, *Top 500* 308). Some of Voïvod's earliest connections with industrial music begin to take seed with this record as well. Voïvod recorded the album in Berlin with producer Harris Johns, who was working with German industrial band Einstürzende Neubauten around the same time (Barclay, et al. 161). As one indication of *Killing Technology*'s 'difference,' the album's title track (which at seven minutes and thirty-three seconds roughly equates to two standard rock songs) opens with several seconds of 'machine' sound effects and features lines delivered by a robotic voice, while the main

musical section of the piece complicates its 'metalness' with genre-bending experimentation. Near its end the song breaks down into a cacophony of mechanical/machine noises, clearly demonstrating Voïvod's efforts to represent this "killing technology" sonically as well as lyrically.

In *Sound of the Beast: The Complete Headbanging History of Heavy Metal*, Ian Christe describes Voïvod's next album, *Dimension Hatröss* (1988), as an "indict[ment of] humanity's technology-driven alienation and fear of the unfamiliar" with a "polyrhythmic science-fiction slam" (198). Characterizing the music as a "heavy mechanical system," Christe suggests that *Dimension Hatröss* "emulate[s] the cacophony of a landscape of competing factories" (198). Like *Killing Technology*, *Dimension Hatröss* was recorded with Harris Johns in Berlin (Barclay, et al. 161), and continues the band's fascination with science fiction themes while solidifying "Voivod's reputation as front-edge cyber-thrashers" (Popoff, *Top 500* 246). The concept album approach is even more clearly defined on *Dimension Hatröss*, each of its songs representing, according to Langevin, a chapter in the record's story—a tale of "terrorism, totalitarian governments and religion [...] ending in cosmic devastation," which, as Langevin points out, is still relevant almost twenty years later (Dome, "Story" 90). He states that his aim with the lyrics was to "put across the fear that technology was moving faster than our ability to cope—something that's still true" (Dome, "Story" 90). This time the Voïvod finds himself inside the machine ("Experiment"), while Voïvod the band becomes more immersed in the machinery of music, using samplers and "electronic enhancers" for the first time (Langevin; see also Fasolino, Scaruffi, "Voïvod") to evoke as well as describe advanced technology.

For this reason, it is *Dimension Hatröss*, rather than any of Voïvod's earlier works, that Langevin identifies as a "crucial" album (Voivod.com, "News"), the band's "transition from thrash metal to something very, very, different" (Dome, "Story" 89). During the recording of *Dimension Hatröss* Johns "introduced [Langevin] to the Akai S-900 sampler and the Roland Octapad" (Voivod.com, "News"). "Suddenly my range of spooky sounds was much wider," he writes, adding that guitarist Piggy also had his musical possibilities "expanded" when Johns showed him "some very inventive ways to use his own multi-effects processor" (Voivod.com, "News"). D'Amour and Langevin recorded themselves hammering on pieces of scrap metal, then ran those sounds through the sampler to make them "eerie and sinister" (Langevin qtd. in Dome, "Story" 91), evoking the sense of fear expressed in their lyrics but perhaps also the violent 'under-siege' atmosphere of late 1980s Berlin (91). Langevin credits Johns for his role in "the Industrial Metal revolution"—for encouraging the blending of industrial and metal that would eventually lead to the emergence of bands like Fear Factory—and suggests that the songs "Tribal Convictions" and "Brain Scan" from *Dimension Hatröss* particularly demonstrate Johns's influence on Voïvod (voivod.com, "News").

"Tribal Convictions," which falls early on the album, deals with a warlord who comes out of the sky, and demonstrates the structural complexity already emerging on *Killing Technology*. However, this song uses additional effects to imbue various knocks and harsh noises with an ominous resonance, and incorporates vocal effects to distinguish the warlord from the people he recruits while increasing the sense of impending threat. "Brain Scan" addresses "brain mutations" and mind control, and uses sampling and digital effects sparingly to signify the actual "brain scan" process. The electronic/

industrial influence in these songs is a manifestation of an ongoing shift in Voïvod's approach to science fiction music, a movement toward the more high-tech or futuristic sounds made possible by digital instruments, which allowed the band to evoke the highly advanced technology (and technological waste) of dystopian literature and film.

Voïvod's next record, *Nothingface* (1989), carried on along similar thematic lines, touching on technology's role as both gift and threat to civilization (Christe 199). Less aggressive than its precursors, *Nothingface* brings the psychedelic/progressive side of Voïvod's relationship with science fiction to the fore with a cover of Pink Floyd's "Astronomy Domine," but the record has also provoked more comparisons to King Crimson and Rush (Berelian 383). Bill Martin, for example, suggests that *Nothingface* is a particularly convincing indication that Voïvod's work "builds on [King Crimson's] 'Schizoid Man' legacy" (157). The band's original material was also becoming more progressive, featuring frequent shifts in timing and tonality, more emphasis on technical accomplishment over speed, and a complete abandonment of any lingering vestiges of 'screamy' thrash vocals—by that time Voïvod "had had it with thrash" (Theriault qtd. in Barclay, et al. 161). *Nothingface* has been called Voïvod's "creative peak" (Berelian 383), "a psychedelic masterpiece" melding metal "with progressive, alternative and classical music" (Barclay, et al. 161). "Piggy's riffing had taken on a jazzy flavour, while the rhythms were hammered home in weird time signatures, creating a menacing, churning welter of off-the-wall dissonance" (Berelian 383) that is "airy" and "foreign" as well as "exotic" (Popoff, *Top 500* 187). Yet aside from this 'strangeness' and the continued use of electronic effects, *Nothingface*'s sound demonstrates few definitive sf markers of Voïvod's continued interest in science fiction.

That is not the case with the album's lyrics. *Nothingface* tackles "serious" subjects ranging "from ecology and alchemy to existentialism" (Fasolino), as well as issues "at home with the cyberpunk movement," such as "isolationism in a technological age" (Jossa). Christe interprets songs like "Pre-Ignition" and "Missing Sequences" as a commentary on technology-related environmental problems, describing "a mythical kind of metal poisoning in robots while alluding to the real-life epidemic of aluminium-related Alzheimer's disease" in Quebec (199). The album does indeed imply that there is a relationship between big business, pollution, and illness, juxtaposing the phrases "Smoke stack spill" and "reeking ooze," and linking fictional companies ("Limbo-Inc.") with "amnesia" and demented "neuro-link[s]" (Voïvod, *Nothingface*, "Missing Sequences"). The song "Pre-Ignition" is even more blatant in its references, blaming "aluminum disease" on "acrid factories" and their "putrid perfect product," and although the song talks about "cybernetic beings," it is not difficult to see the contemporary references in phrases like "atmosphere infected," when one can read or hear reports on environmental damage on a regular basis.

Voïvod also reached new peaks of budget and popularity with the *Nothingface* album. Before embarking on the recording sessions the band signed with Mechanic, which was affiliated with major label MCA (Barclay, et al. 161). The "perks of major label funding" took Voïvod from "recording live in the studio and releasing videos that Away had created on a Commodore Amiga computer" to its "first serious multi-tracking experience" and "the release of their first big-budget video," for "Astronomy Domine" (Barclay, et al. 162). Voïvod was finally showing up on MTV, the record sold "a quarter of a million copies," and the band had its choice of tour openers and a chance to open for

Canadian prog rockers Rush (162). *Nothingface* also gave the band its first (and only) appearance on *Billboard*'s top 200 chart, peaking at 114. Despite the album's success, Voïvod was unable to sustain that momentum into a new decade, and with the arrival of the 1990s the band was beginning to feel "the powerful currents of the imminent grunge movement"—the early buzz around bands like Nirvana (Barclay, et al. 162).

Metal's Decline and the Influence of Industrial

By 1991, Voïvod had "abandoned" its namesake character and released an album, *Angel Rat*, that was more "progressive rock" than "progressive metal" (Carson). The band maintained an element of 'science' in the new record; the track "Nuage Fractal," for example, describes a scientific process, with references to mutation, "viruses," and "code" (Voïvod, *Angel Rat*), and makes uses of some metallic-sounding electronic effects. However, *Angel Rat* explores "folk tales" instead of "outer-space adventures" (Garza 76), and finds inspiration more often in "classic mythology and fairy tales" than in science fiction and technology (Barclay, et al. 162).

While Voïvod shifted its conceptual and musical path, developments within and around the band produced even more drastic changes. After *Nothingface*'s success Voïvod was under pressure to produce a hit, contributing to "dissension" between band members during the recording process and Theriault's departure from the band before *Angel Rat*'s release (Barclay, et al. 162-163; Garza 76). *Angel Rat* is an "accessible" album, "with shorter songs, focused ideas and slower grooves" as well as "melodic choruses and traditional rock rhythms," but it sold fewer copies than *Nothingface*—a "respectable 150,000" (Barclay, et al. 162-163). Label politics and restructuring

undermined promotion of the new record and prevented Voïvod from booking any significant tours (Garza 76; Henderson 13), but the changing musical climate was another factor in the album's relative failure.

Voïvod now had to contend with mainstream media's new love affair with grunge (see Weinstein, *Heavy Metal* 278). *Angel Rat* "quickly sunk from sight" as the alternative rock coming out of Seattle gained attention (Book and Prato), and the "alternative" elements in Voïvod's "metal stance" could not overcome the public's distaste for "anything with an 80s connection" (Berelian 382). It was in a decidedly grunge-friendly musical climate that Voïvod began working on another record. Voïvod's next album, *The Outer Limits* (1993), was the result of an even "larger recording budget," produced "an extensive tour of the United States" (Barclay, et al. 163) and was a critical success, but the record failed to "[break] the band to a mainstream audience" (Carson). A continuation of Voïvod's "journey through psychedelic metal territory," *The Outer Limits* takes its name from a classic science fiction television series (1963-1965) and unites the folk tale direction of *Angel Rat* with the band's science fiction interests. The song "Jack Luminous," for example, combines "an Irish legend about a phosphorescent guy hidden in a swamp" with a narrative "based on computer technology" and the ability to "invent" people from software (Garza 75). The record was also a nod to pulp magazines of the 1930s and 1940s, titles like *Amazing Stories* and *Astounding Science Fiction* (Garza 94; Langevin).

Musically, Voïvod responded to grunge and alternative metal with a return to the "heavier side," hiring an "engineer that could push the sound—make it really big, almost like an industrial-dance feel" (Langevin qtd. in Henderson 13). But still, in 1993, Voïvod

was "obviously a band of the '80s" (Langevin qtd. in Barclay, et al. 164). *The Outer Limits* reveals a stronger taste for more straightforward hard rock/metal sounds than any previous Voïvod record, and its many guitar leads and solos dated Voïvod in the ears of younger fans and musicians that disdained or even rejected the traditional rock guitar solo. The progressive rock technicality displayed in some songs ("Moonbeam Rider," for example) also lacked a place in the new anti-virtuosic musical environment. After the release of *The Outer Limits*, Voïvod's failure to achieve mainstream success may have contributed to another casualty, as Belanger left the band (Barclay, et al. 164), but his departure made way for Voïvod's reinvention as an industrial influenced metal power trio.

As grunge artists' popularity made "alternative metal" the aggressive music "buzzword" (Christe 222), the "key to survival" in a 1990s music scene "was adaptation and transformation" (228). Older metal bands now had to compete with aggressive grunge artists such as Nirvana, Soundgarden, Pearl Jam, and Stone Temple Pilots, as well as hard to categorize alternative metal bands like White Zombie (Friesen and Epstein 12-13). By the early 1990s, alternative music had "become the most popular type of music played on Top 40 radio stations," and "[w]hile not all alternative music can be considered heavy metal, the alternative scene influenced new bands within the heavy metal genre enough to cause stylistic innovations" (Friesen and Helfrich 273)—stylistic innovations that made artists like Voïvod seem out of touch.

By mid-decade metal had been issued a death certificate (Weinstein, *Heavy Metal* 277), at least in terms of commercial recognition, or had desperately latched onto new genre labels, such as "hard music," that avoided the word "metal" completely. Albums by

popular metal bands (Skid Row, Mötley Crüe, Van Halen, Guns N' Roses) debuted at the top of *Billboard*'s charts in 1991, but within a few years metal's access to mainstream media outlets began to dry up (Weinstein, *Heavy Metal* 278). Metal radio suffered a blow in the loss of Los Angeles station KNAC to a "non-rock format in1995," and "glossy metal magazines" began "open[ing] their pages" to grunge bands (Weinstein, *Heavy Metal* 278). MTV cancelled its "weekly late-night metal program 'Headbanger's Ball' in 1996, and Canada's Much Music soon followed suit by taking its afternoon metal show *The Power 30* off the air (Weinstein, *Heavy Metal* 278).

Metal persisted throughout the 1990s, but largely as an underground phenomenon (Weinstein, *Heavy Metal* 282), and throughout this period the extreme metal underground continued to demonstrate metal's social consciousness, particularly in the death metal subgenre. Death metal fans and musicians often emphasize the "importance of critical thinking, individualism, and self-motivation" (Berger, *Metal* 267-268). Natalie Purcell suggests that "themes of individuality and freedom are common in Death Metal," frequently emerging "in lyrics with sociopolitical overtones" (48). Such lyrics "often describe reality" and "offer critical, if not always prescriptive, commentary," tackling a range of "social issues," including "environmental concerns" (Obituary's *World Demise*, 1994), "social values" (Death's "Altering the Future," 1990) and "drug abuse" (Atrocity's *Hallucinations,* 1990) (46-47). Many songs by Napalm Death, for example, incorporate "serious criticism" of sexism, racism, homophobia, "corporate exploitation," and "mindless conformity" (47). Extreme metal's preference for dark or serious subject matter is, in part, a rejection of stereotypical pop metal lyrics, but contemporary international affairs may have also played a significant role in metal's ongoing concern

with social issues. The political climates of the United States and the United Kingdom had changed dramatically by the 1990s, but the social, economic and political problems of the previous decades had not vanished, and rapid advances in technological development meant that technology exerted an increasing influence on people's day-to-day lives. In this troubled, high-tech environment, concerns about the use and implications of technology continued to surface in many metal songs.

Megadeth's "Architecture of Aggression" (*Countdown to Extinction*, 1992), for example, addresses the destructive force of military technology—suggesting that "flames ris[ing] to the sky" and "worldwide suicide" will be the results of its deployment. Similarly, "The Mission" by Damn the Machine (1993) speaks about a grand weapon, and the song's video, aired on music television at the time, offered a science fictionalized treatment of the story, portraying a world where breathable air must be purchased and is subject to theft (Galipault). Edge of Sanity's "Blood-colored" extrapolates contemporary high-tech war into a *Terminator*-like future, where "technology is fatal"—"This war is over for mankind / The X-machines will end us all" (*Purgatory Afterglow*, 1996). Iron Savior's science fiction debut album (*Iron Savior*, 1997) pursues a similar concept, describing a "thinking war machine that, thanks to human meddling, becomes a potential destroyer of Earth" (Begai 32).

Less overtly threatening, developments in computer technology in the 1990s may have also contributed to the technological focus of several bands' social critique. Meshuggah, for example, dealt with issues such as destruction of the environment and governments' refusal to act ("Paralyzing Ignorance") on their debut album *Contradictions Collapse* (1991), but later began to link the imagery of computer

technology to the loss of individual thought and the de-evolution of the human species (*Destroy, Erase, Improve*, 1995)—"Future Breed Machine" refers to "synthetic souls mass produced," "programmed [...] humanoids" who pose a threat to a "dying race" (Meshuggah, *Destroy, Erase, Improve*). Whether the band is suggesting that computerized cyborgs will kill off the human population or that humans will become machine-like themselves, the association between advanced technology and the loss of humanity is clear.

Prog metal band Ayreon took a more explicitly science fiction approach, at least in terms of lyrics, to concerns about advanced computer technology. The song "Computer Reign (Game Over)" describes a futuristic world where computer "chips are in command" (*The Final Experiment*, 1995), and a track from the following album, *Actual Fantasy* (1996), addresses the problem of over-immersion in computer technology. The song "Computer Eyes" presents the voice of a character that is trapped in "virtual reality," losing touch with the "real world" and becoming "no more than a program" (Ayreon, *Actual Fantasy*).

These works by Ayreon and Meshuggah were released at a time when increasing numbers of people were gaining access to the world wide web through their home computers, when computer video games were becoming more advanced, when the computer technology industry began to explode and high-tech jobs seemed the way of the future. Evolving from *Time* magazine's "machine of the year" in 1983, the personal computer became a portal through which "an estimated seven and a half million households" were accessing the Internet in the mid-1990s (Dery, *Escape Velocity* 4). Dery suggests that as more and more people spend increasing amounts of time online,

society is experiencing "the disembodiment of the human," a shift that parallels the "ephemeralization of labour and the evanescence of the commodity" in late twentieth century capitalism (6). Technological developments offered the promise (or threat) that our "devices" will some day "come alive" (Dery, *Escape Velocity* 7), but in the spirit of cyberpunk's "dismissal of the body" (McCarron 262), many people also envisioned humanity finding eternal life in the machine (Featherstone and Burrows 3-4). The notion of human/machine hybrids gained resonance, including theories that we will abandon our "weak flesh" and "download our willing spirits into computer memory or robotic bodies" (Dery, *Escape Velocity* 8).

While the pervasiveness of computers and high-tech discourse was contributing to a focus on the implications of digital technology in several metal songs, advanced technology was also more frequently finding its way into the sound of metal music, a trend influenced by developments in the industrial music genre. In the 1990s, several industrial bands gained popular recognition for adding the sound of loud, distorted guitars to their electronic foundation of drum machines, synthesizers, and samplers. Ministry, for example, flirted with and subverted hard rock formulas (*All Music Guide* qtd. in Collins 11), and achieved a hit single with the metal-tinged industrial song "Jesus Built My Hot Rod" from *Psalm 69* (1992), while the entire album rose high on *Billboard*'s charts (All Music Guide, "Ministry"). Other bands combining metal guitars with industrial music's electronics also received popular acclamation and mainstream media attention in the early 1990s as well. KMFDM's "A Drug Against War" (1993) appeared on video television (such as Canada's Much Music) and the band climbed onto *Billboard*'s charts with the 1995 album *Nihil* (All Music Guide, KMFDM). Nine Inch Nails has maintained a

Billboard presence since the release of debut album *Pretty Hate Machine* (1990) and its advance singles (1989) (All Music Guide, "Nine Inch Nails"), and the band helped contribute to industrial music's widening fan base (Collins 125). Artists with less mainstream recognition also blended metal music and industrial. For example, Godflesh (a band founded by a former member of the metal band Napalm Death) "bludgeoned [...] listeners with the sound of a monolithic machine press" and "proved that the definition of heaviness could waver into stark industrial turf far outside the colourful grasp of Van Halen and Mötley Crüe" (Christe 332).

Several bands with a more obvious foundation in the metal scene also began to be open to the use of synthesizers and samplers. Type O Negative's mix of thrash metal and gothic rock incorporated synthesizers' traditional organ sounds as well as samples of "tires screeching, or babies crying," or metal drums "being thrown down a flight of stairs" (Christe 223-224). White Zombie's *Astrocreep 2000* (1995) featured "extensive sampling" alongside a "metal groove," and the band followed up this record with an album of remixes (Berelian 403)—a form of sonic experimentation associated more with dance music and industrial than with metal (and one both Fear Factory and Voïvod have engaged in). White Zombie's music was rooted in comedic horror (Berelian 403), but the band demonstrated an appreciation for science fiction too—the song "More Human Than Human," for example (*Astrocreep 2000*, 1995), borrows its title from a line in the sf film *Blade Runner*. For groups with extended concepts based in science fiction and dystopia (bands like Voïvod and Fear Factory) the "inhuman" connotations associated with synthesizer and sampler use may have been part of the instruments' appeal, offering a

way to get the sounds of technology into their music but also a way of alluding to the "dehumanizing" effects of high technology and a highly technological society.

Introducing Fear Factory: Industrial Metal Takes Shape

Fear Factory came onto the music scene in the early 1990s, merging synthesizers, distorted guitars, and science fiction in an early prototype of what would become the quintessential industrial metal sound. Soon after the emergence of bands like Godflesh and Nine Inch Nails, and Ministry's blending of industrial with guitars, Fear Factory represented "the next major step" toward uniting metal music with machines (Christe 334). Fear Factory was one of the first artists to "to fuse the loud, crushing intensity of death metal with the cold harshness of industrial electronica and samples (Huey, "Fear Factory"), a "slick" band from Los Angeles that "took technology to heart and reinvented itself" with "digital studio techniques" (Christe 334). According to Roadrunner Records (the band's label throughout the 1990s), Fear Factory was responsible for inventing a new "cyber metal" sound (Roadrunner).[16]

While Fear Factory's music was rooted in the metal and industrial genres, the band's sf themes came from primarily non-musical influences—"stories, books, movies and science that contained various themes of human bondage and suffering" (Fear Factory, *Digital Connectivity* 2). Vocalist Burton C. Bell admits he has "always been a fan of science fiction," and that sf has had a significant impact on the band's development:

---

[16] See chapter one for my definition of cyber metal. *Unrestrained!* magazine has also applied the label to Voïvod (Ristic 6). Within the metal scene *cyber metal* tends to be a descriptive phrase rather than a firm generic category, referring to bands with technologically inflected music and, frequently, lyrics.

> We really wanted to create a soundscape of the society we lived in, so science fiction definitely was a big part of Fear Factory—science fiction/chaos movies [the *Terminator* films, *Blade Runner*, *RoboCop*], books, video games, commercials; it entails so much—we took elements from all that and we fused them into our music (Bell).

Guitarist Dino Cazares has also affirmed the entire bands appreciation for science fiction (qtd. in Small 3).

Most Fear Factory biographies and many magazine articles emphasize the band's thematic direction and its relationship to the music as much as the music itself. For example, Steve Huey suggests that Fear Factory expresses a "bleak, pessimistic view of modern, technology-driven society" ("Fear Factory"), and Berelian writes that Fear Factory's music is "a direct reflection of their obsession with technology" (123). Even the band's self-penned biography, printed in the liner notes of the DVD release *Digital Connectivity* (2001), addresses Fear Factory's concepts rather than describing the music: a "cyber-human species" is "the catalyst for the apocalypse of humanity;" a "'fictional' government" "has complete control, in a world that seems to lack any type of individual sense;" a society "sets limits on individual freedoms, and precedence on conformed behavior" (2).

Fear Factory's debut album, *Soul of a New Machine* (1992), established the band's approach, blending "sci-fi inflected lyrics"—"songs based around the ever-present theme of man vs. machine" (Ingham 82)—with the electronics and sampling of industrial music and the "crushing power of death metal" (Berelian 123). The follow-up to a compilation appearance (Huey, "Fear Factory") and a then unreleased demo album (Ingham 82), *Soul*

of a New Machine failed to gain the band any immediate commercial success (Wikipedia) but its "bleak soundscapes" provide "the perfect manifesto for the cyberpunk generation" (Scaruffi, "Fear Factory").

Although references to industrial abound in descriptions of any point in Fear Factory's career, during the band's formative years its music revealed more elements of death metal than industrial—particularly in the loudly distorted down-tuned guitars and growled vocal delivery. However, Voïvod also had an impact on Fear Factory's music; according to producer/musician Rhys Fulber, Cazares attributed the album's distorted bass sound to Voïvod's influence (Fulber). The digital component of *Soul of a New Machine* consists primarily of a series of intermittent samples (often movie quotes), contributed by a guest musician—"sample god" Otis (Fear Factory *Soul of a New Machine*). Musically the record sustains a machine-like precision, particularly in the rhythm section, but demonstrates few obvious markers of science fiction sounds. The short instrumental track "Natividad," however, could serve as a text book illustration of music that reproduces "factory clangor" (Dery, *Escape Velocity* 81); the composition is less a song than a minute-long percussion solo where metallic clanking and banging and screeches evoke images of a post-industrial trash compound or the workings of a monstrous machine.

Thematically the album is overtly condemning—of the justice system ("Scapegoat"), of war ("Crisis"), animal testing ("Crash Test"), and religion ("Desecrate"). While the denunciations are not explicitly science fiction oriented, there are indications of sf leanings in the record's title, which suggests futuristic technology and shares its name with Tracy Kidder's Pulitzer Prize-winning non-fiction account of the late 1970s world of

computer engineering (1981). The cover art for *Soul of a New Machine* also evokes science fiction with a cyborg-like image of a young foetus imbedded in a close up of machine parts and wires. The record's liner notes offer another clue to the band's interest in science fiction and technology, replacing the usual list of who plays guitar, vocals, bass and drums with more 'technological 'descriptions of each band member's role. Terminology like "hardware," "utilities," and "variable percussive wrecking," depicts the musicians in Fear Factory as machine-operators, and makes them sound like components in a larger technological system (*Soul of a New Machine*).

According to the DVD biography, a machine is precisely what Fear Factory resembles; the band was "assembled from a blueprint, complete with schematics for tactical engineering," its members "disparate yet equal parts," each "perform[ing] a specific function" and contributing to the whole (*Digital Connectivity* 1). Similarly, Fear Factory's entire musical catalogue can be viewed as a chapter in a larger project—a "story of science fiction evolution and revolution," presenting a view of the future in which humans are oppressed under a system of tight control, based on issues tied very much to the present (*Digital Connectivity* 2). The notes describe Fear Factory's early incarnation as "a human machine, born into a conformed and machine-like world," with the goal, since the band formed in 1990, of "enlighten[ing] the minds of those who wanted more out of music" (2).

The songs on *Soul of a New Machine* demonstrate an early expression of some of the characteristics Fear Factory would maintain as features of its music through the next several albums. Short, percussive guitar riffs forming the basis of song structure and the aforementioned machine-like precision are early non-synth indications of Fear Factory's

industrial influences. Tracks like "Martyr" and "Scapegoat" also highlight one of the band's most significant techniques for lightening the sense of oppression created by the relentless repetition and restricted melodic variation of the instrumental arrangements and growling vocals. During sections of these songs and several others, Bell breaks into a softer singing style with a distinguishable, if limited, melody, and the reverb effect on the vocals, unlike the growls surrounding these sections, only slightly distances the voice from traditional human singing.

Follow-up recording *Fear is the Mindkiller* (1993) cemented Fear Factory's relationship with electronic music, increasing the futuristic timbre of its sound with six techno/industrial remixes of four songs from the previous album. Bell describes *Fear is the Mindkiller* as "a whole new idea" of Fear Factory, the remixes a form of reinvention (Bell). The release also began Fear Factory's multiple album collaboration with Fulber, who at the time was best known for his work in the industrial group Front Line Assembly—one of the bands Dery classifies as "cyberpunk rock" (Dery, *Escape Velocity* 81-82). Fulber remembers guitarist Dino Cazares as being very "forward thinking" at the time, and suggests that the remix EP "influenced a lot of other bands" (Fulber). *Fear is the Mindkiller* solidifies Fear Factory's engagement with science fiction as well, borrowing its title from the Bene Gesserit "Litany against Fear" in Frank Herbert's *Dune* (Herbert 8).

The visual imagery on *Fear is the Mindkiller* is entirely machine, its cover aptly described in the DVD as a "massive, factory type engine" with "a giant arm and rotating gear hidden amongst other types of machines" (*Digital Connectivity* 2). Although the band members are described in more conventional terms here (by instrument), the line-up

for this release sees the addition of a member dedicated to providing samples and keyboards, Reynor Diego, while Fulber and his bandmate Bill Leeb are credited with sonic "transmutation" (*Fear is the Mindkiller*). Fear Factory's relationship with technology also slips toward sf in the title of one particular track, the "Liquid Sky Mix" of "Self Immolation." "Liquid Sky" is a phrase taken from the original recording of "Self Immolation," but it is also the title of an alien-themed science fiction movie from 1982.

The songs on the EP are drenched in programming, electronic beats, and digital effects. The electronic elements used in the remixes maintain the EP's connection to the dystopian atmosphere conveyed by the harsh, echoey sounds of *Soul of a New Machine*, but *Fear is the Mindkiller* has more high-tech sheen—as if the debut album was an expression from a desolate post-industrial inner city ghetto, while the more pristine and brightly mixed EP takes a step further into a landscape of advanced technology, immersing itself in the machine. Some of the remixes demonstrate their electronic infusions with a club-oriented, nearly danceable groove (the revisionings of "Scapegoat" and "Scumgrief," for example), while others (like the "Vein Tap" mix of "Self-Immolation") clearly borrow techniques and synth sounds from techno music.

What *Fear is the Mindkiller* most significantly indicates is Fear Factory's willingness to stretch the boundaries of the metal genre and experiment, an act that parallels, in spirit if not sound, Voïvod's late 1980s generic experimentation. Despite the metal scene's longstanding aversion to synthesizers, many people saw potential in what Fear Factory was doing. Reviewer Tim Henderson, for example, suggested that the EP's melding of "brutal death metal" and "dance-core" was "bound to take this 4-piece to greater heights" (Henderson 29). Fear Factory would return to the remix strategy again, providing remixes

as bonus tracks on reissued albums and releasing a full remix album entitled *Remanufacture: Cloning Technology* (1997), which made it to *Billboard*'s Heatseekers and top 200 charts (All Music Guide, "Fear Factory"). Voïvod also dabbled in the remix phenomenon, including three electronic remixes of songs from *Negatron* and *Phobos* on the rarities album *Kronik* (1998), along with four unreleased recordings and four live tracks. *Kronik* was a natural progression in the more obviously industrial-influenced direction that Voïvod pursued during the mid-1990s, and a further indication of the band's participation in an ongoing cross-genre dialogue.

Before the release of Voïvod's and Fear Factory's cyber metal albums of the mid to late 1990s, both bands engaged in longstanding relationships with technological sounds and themes, as well as science fiction influences and concepts. While specific musical, literary, and cinematic texts obviously had a significant impact on the artists' engagement with sf, it is also important to recognize the influence of broader musical trends, such as the decline in metal's commercial success and the rise of grunge and alternative, as well as wider cultural concerns, particularly the persistence of sociopolitical and economic problems, the continued threat of high-tech war, and the increasing ubiquity of increasingly indiscernible technology. Voïvod's and Fear Factory's mid to late 1990s output continues to reflect on society and social issues, but with a more strongly industrialized sound to accompany the bands' high-tech themes. The following chapter provides a close reading of the bands' cyber metal works, and their representations in sound and lyrics of images of humanity and technology, dystopia and hope.

Cyber Metal as Critical Dystopia:

Reading *Negatron, Phobos, Demanufacture* and *Obsolete*

While the previous chapter concentrates on the progression of Voïvod's and Fear Factory's careers leading up to the mid 1990s, with some attention to the broader sociocultural and musical environment of the times, this section of my thesis examines four albums in more detail, unpacking not simply their elements of science fiction and representations of technology and dystopia but analyzing the dystopian narratives for indications of the bands' critical impulse. These cyber metal albums express concerns about the misuse of technology and the dehumanizing or destructive effects of technological advancement and rationalization, but they also demonstrate a degree of ambiguity and open-endedness that creates room for hope in their otherwise pessimistic visions and aligns them with the critical dystopian movement in sf literature and cinema.

Voïvod's *Negatron* (1995) and *Phobos* (1997) and Fear Factory's *Demanufacture* (1995) and *Obsolete* (1998) epitomize each band's efforts to craft technological dystopian narratives in music and lyrics, but the perspectives conveyed by sound and verbal text do not always correspond, and my analysis considers contradictions as well. My readings of Voïvod's and Fear Factory's representations of technology, technologized systems, humanity and individuality rely on the semiotics of metal sounds I outlined in chapter one in coordination with analysis of the albums' verbal texts. This chapter also makes reference to album artwork and video imagery, because both bands sustain their engagement with science fiction in their supplementary visual media, as well as music and lyrics. As in the previous chapter, I have augmented my own comments on the texts with information from album reviews, published interviews, and the interviews I

conducted with some of the artists involved—Voïvod drummer Michel Langevin and vocalist/bassist Eric Forrest, as well as Fear Factory vocalist Burton C. Bell and producer/programmer Rhys Fulber.

Voïvod's and Fear Factory's engagement with science fiction and the dystopian tradition on these albums is tied to concerns that advanced technology will be used to control, dehumanize or destroy ordinary people, and therefore, *Negatron*, *Phobos*, *Demanufacture*, and *Obsolete* deal with the struggle for human autonomy, individuality and survival in a highly mechanized and technologized world. The human or human-like figures portrayed in the narratives of these albums are threatened with mass destruction, strategic elimination, or assimilation—incorporation into a machine that is a metaphor for inhuman sociopolitical or socioeconomic systems.

Neither Fear Factory's nor Voïvod's works entirely condemn humanity to machine-instigated obliteration, but the openings for hope are fairly limited and leave more questions than answers. While the degree and nature of liberating potential on each album may differ, all of these works present images of destructive yet flawed technological systems rather than unassailable structures of control, and contrast these systems with autonomous, hybridized resistance. And while both bands avoid easy, happy, or even definitive endings, the resulting ambiguity (of both outcome and identity) tempers their representations of oppressive technologies and systems with the sense that an alternative future is possible, within the narrative but also for our own society. By extension, the persistence of hope in these works indicates that metal's use of science fiction can in fact be critical rather than simply nihilistic or revelling in disaster.

Negatron

In 1995 Voïvod released its eighth full-length studio album, entitled *Negatron*—a name connoting, and connecting science and technology with, negativity.[17] Some long-time fans, particularly those who had appreciated the progressive metal/rock direction of the late 1980s and early 1990s records, saw little in this new incarnation of Voïvod that reminded them of the band they loved—only two of the four original members remained, and instead of complex song structures and melody-focused singing, the album offered a mix of extreme metal and industrial with a more minimalist approach to song construction and harsh growled or shouted vocals. One review calls the album a reasonably successful "heavy industrial metal project"—with its "pounding drums," "heavy-handed" dissonance, and "distorted shouting, occasionally treated [with effects]"—but complains that there are no "interesting rhythms," "nice vocals" or "inventive melodies" (Kime), while another suggests that that the record lacks the "variation" characteristic of the band's earlier material (Prato, "Negatron"). However, Voïvod's more intense and industrialized sound also met with appreciation—for its heaviness, for example (Bromley, "Negatron"), or its coherence (McDonald), or for the band's collaboration with industrial musician, Jim G. Thirlwell (from Foetus) on the track "D.N.A. (Don't Know Anything)" (Smith).

What I would like to suggest here is that Voïvod's lack of musical "variation" and heavier, industrial/extreme metal approach on *Negatron* allowed the band to express the overwhelming and sometimes oppressive presence of technology in the late twentieth century in a more visceral and sonically evocative way than it had with its previous work.

---

[17] A negatron is a sub-atomic particle with a negative charge (Dictionary.com; World Book).

The album's overall structural coherence, repetitiveness, harsh and monotonous vocal delivery, and use of digital effects and samples all evoke an atmosphere of claustrophobia and domination substantially stronger than that of any of the band's earlier releases. *Negatron* connects that atmosphere to technology and mechanical systems, minimizing, but not eliminating, clear indications of human individuality and resistance. It is through the combination of such sounds with lyrics that similarly depict technology as a potential threat to human autonomy and survival that Voïvod most effectively united science fiction and metal music, using the medium—cyber metal—as a vehicle for critical commentary on contemporary society. These tendencies, revealed on *Negatron*, become even more obvious on its follow-up, *Phobos*, and provide the key link between Voïvod's and Fear Factory's work in the mid to late 1990s.

Langevin describes *Negatron* and *Phobos* as a return to "the warning system" of the band's 1980s albums, a "much more serious" direction inspired by his own awareness of new technological developments—"new technology that scared me as much as when I was a teenager with the nuclear war stuff," he explains (Langevin).

> I had done interviews on CompuServe and stuff like that at the end of the '80s and early '90s but it's only around '94/'95 that I plugged into the Net and started the first Voïvod website. And that's where I discovered all these sites about what was going on scientifically, and politically, socially, and everything, and I tried to combine everything together and that really scared me, as I had been scared in '79 or '80, and I decided to write a couple of concepts about it. And the music was heavy so it turned out that everything together was kind of scary, these two albums anyway (Langevin).

Lyrically, *Negatron* enters the realm of science fiction and dystopia through songs about the destruction of the planet and its people ("Project X," "Planet Hell," "Meteor," "Erosion"), the merging of organic life with technology ("Nanoman," "Bio-TV"), conspiracy theories ("Project X," "Cosmic Conspiracy") and mind control ("Insect," "Bio-TV"). Langevin has emphasized the record's attention to "conspiracy and terrorism" (qtd. in Masters 13)—influenced by William Cooper's conspiracy exposé *Behold a Pale Horse* (1991) and the U.S. government's HAARP project (Langevin), as well as alien abduction stories and "new world order" scenarios (Hellfrost).[18] *Negatron* also deals with nanotechnology, "where micromachines build other machines that build other machines," Langevin explains—"it gets out of control and suddenly there are too many machines" (Langevin). The song "Nanoman" deals with the psychological breakdown of a soldier who is the "guinea pig" in army experiments to produce "superhuman" soldiers enhanced with "bio-chips" (Garza, "Space Oddities"). Another track addressing the biological implications of technology was inspired by an advertisement for a television that gives off healthy "rays"; from there Langevin imagined a human and television "mutating together—a human becoming a walking RV and the TV becoming a walking human, both looking exactly the same" (Garza "Space Oddities").

Negatron's artwork further emphasizes the record's dystopian and technological imagery. Its cover depicts a barren dystopian landscape, featuring only a few distant mountains and a nuclear power plant, both clouded behind an angry purple and red haze

[18] The HAARP (High Frequency Active Auroral Research Program) project involves research into transmission of electromagnetic radiation through the "ionosphere" (a portion of Earth's upper atmosphere) for "communications and surveillance" in support of both "civilian" and "defense" purposes (HAARP).

(see fig.1). The album's concern with technological/organic hybridity finds expression in robotic/cyborg-like figures— a mechanical insect and a walking television. The "Bio-TV" pictured has little human about it beyond its upright, two-legged mobility (see fig. 2), but the mechanical ant has strong anthropomorphic qualities, implying a similarity between human and insect and challenging the distinction between mechanical and organic life. The insect occupies the foreground of the cover, staring out at the viewer with its front legs lifted into the air, in an uncertain, 'human' fashion (see fig. 1). The ant has a computer-animated role in the "Insect" video as well, again highlighting a similarity between human and insect as it evolves from a six-legged walk to an upright, human stride. While the robotic insect image complicates distinctions between machine and organic life, it also connotes a lack of individuality, implying that human society makes no more room for autonomy than highly ordered ant colonies.[19]

Negatron's computer graphics and the video's computer animation contrast the more 'organic' free-hand drawings of Voïvod's earlier albums even though they are still the work of Langevin. They, like Langevin and D'Amour's early use of samplers in the 1980s, demonstrate the band's willingness to exploit new, up-to-date technologies in service of their art. Langevin, for example, employed Softimage software for his computer animation, a program best known at the time for its use in *Jurassic Park* (1993) (Garza "Space Oddities"). That technology is not inherently bad, but rather a force with the potential to cause harm under human (mis)guidance is a perspective emerging out of

[19] This imagery may also be read as an allusion to the ant-like Selenites of Wells's "The First Men in the Moon" (1900-1901), who are born into specific roles in society and kept there with an "elaborate discipline of training and education and surgery" so that eventually they have "neither ideas nor organs for any purpose beyond" that role (Wells 236).

the band's music and lyrics and one it shares with several other sf writers and filmmakers, particularly those associated with the critical dystopia. Langevin's personal attitude toward technology comes across as ambivalent—he talks enthusiastically about his use of technology for computer graphics and sampling, and notes there is "always somebody who does something wonderful" with technology, but adds that humans always manage to turn technology into weapons as well (Langevin).

Images of destruction in *Negatron*'s lyrics tend to echo this attitude, situating technology not so much as the source of disaster but as a means, a tool, or a weapon bringing about the disastrous effects of human neglect, misjudgment, or malignance. "Planet Hell," for example, describes a "planet in despair"—its "nature [is] in decay" and it faces "nuclear demise," but the problem is "technical abuse" rather than technology itself. The song associates the destruction of the planet with human death, implying that Earth's "downfall" is also the fall of the human species. The lyrics refer to "decomposed bodies," a "rising" "body count," and "countless homicide," and while they assert that it is the "planet [that is] in despair," the following phrases—"paralysed with fear / frequent suicide"—suggest that in this case, "planet" is a metonym for the human population rather than the physical environment. Technology also appears as a direct means of ending human life, as lines like "chemical weapons burning citizens" and "murderous machines" indicate, but again, human agency lies behind this destruction in the "conflict" of "country vs. country" ("Planet Hell").

"Planet Hell" also alludes to the nuclear war theme common in thrash metal a decade earlier, including Voïvod's *War and Pain* and *Rrröööaaarrr*, but by incorporating industrial influences the band enhances its ability to evoke technological metaphors. The

digitally processed opening vocal lines sound like the articulations of a machine and Forrest delivers them over mono-tonal guitar riffs whose complete lack of melodic virtuosity implies a machine source. And human agency is not merely an ingredient of the lyric. Voïvod inserts a slightly more human element into the song with elements that are less 'mechanical' and somewhat more virtuosic—Forrest's less-processed shouted vocals, a repeating bass riff that demonstrates both speed and some melodic movement, and some lead guitar lines in the 'solo' section (not a 'typical' virtuosic solo, yet still a departure from the riffs played by the rhythm section). However, these 'human' sounds are still very harsh—no less threatening than the more 'mechanical,' industrialized sections of the track.

Negatron's blending of human-centred and machine sounds and its lyrical depictions of cyborged humanity tend to display more suspicion than idealism. "Nanoman," as I indicated earlier, explicitly raises the issue of nanotechnology, which according to Mark Dery is a "theoretical discipline" involving "the injection of nanomachines—self-replicating subatomic engines, smaller than a millionth of a meter—into the human body, where they would repair the ravages of age on a cellular level, affording near-immortality" ("Cyberculture" 511). Instead of depicting the 'wonder' or 'promise' of nanotechnology, "Nanoman" evokes a sense of disorientation, uneasiness, or dislocation at times, which surfaces in elements like the drums-only opening seconds and the slow solitary guitar chords that follow, in phrases like "a million atoms dance alone" or in the chorus, "Nanoman they let you wander / like a child and then they fill you / full of things, then you'll turn to / Nanoman…" He may be virtually immortal thanks to the promise of technology, but this Nanoman seems solitary, lost, and manipulated.

It is not merely the individual, the Nanoman, whose well-being is at stake due to technological manipulation of the human body; rather this character seems symptomatic of a larger problem, one of the "side effects" of human "tunnel vision" ("Nanoman"). The song refers to the failure of technology—his "memory transistor" is "useless"—and its destructive power—"satellites destroy an eye blink"—juxtaposing such observations with a reflection on the decline of civilization—"in the age of erosion / the end is signalled by machine." Here again, technology is a marker of what is going wrong with society rather than a cause. Musically, "Nanoman" focuses on the human more so than the technological element, demonstrating significantly more melodic movement than the other songs on the album as well as a guitar solo, although the solo only briefly demonstrates virtuosity and its simplicity suggests stunted rather than limitless human potential. The mechanical percussiveness of the riff preceding each verse, and the additional electronic effects and processing applied to the lines about "erosion" and the machine signal associate this inhibiting of potential with the technological realm.

The lyrics of "Bio-TV" also address human-machine hybridity, forecasting a "transmutation," as Langevin's comments suggest—the merging of human and television in a device that appears conventional but is really "harmful beyond belief" ("Bio-TV"). "Wired into your brain," the Bio-TV "transmit[s] full time," and brings you "closer to the picture," but it offers "a lesser point of view" and can "X-ray your mind" ("Bio-TV"). Rather than the two-legged walking television pictured in the liner notes, the lyrics to "Bio-TV" evoke the image of people sitting stationary and numbly in front of televisions, with wires connecting their heads to the sets. Vocal lines delivered in a mechanical

monotone tend to support this image, as do several riffs made up of repetitions of no more than one or two chords.

With these descriptions of the Bio-TV's operation, the song raises the issue of technology being used as a means of control—for surveillance, to discourage direct experience, and limit individual thought. The lyrics thus portray the Bio-TV's viewer as a passive "receive[r]," who becomes what he or she watches—"Bio-TV is what you see [...] Bio-TV is what you'll be"—the pawn of an outside, technologically-empowered force. Similarly, the monotonous sections of the song do not simply suggest lack of movement and thought; they also evoke imagery of a broader system of technological control through the constant, precise repetition of short bass-heavy patterns, situating melodic flourishes and rhythmic deviations within a larger structure of mechanical oppressiveness. The steady repetition begins to feel crushing after a short period of time, reinforcing a negative sense of the controlled operation of a large machine. Even the song's brief solo is more a mechanical exercise, running up and down a scale, than a symbol of individuality or creativity.

Other songs on *Negatron* evoke imagery of technologized control even more effectively. "Cosmic Conspiracy" begins with the rhythm section performing at a plodding, mechanical pace, the lead guitar line (a slow repetition of four different sustained notes) and the vocals that soon come in drenched in electronic industrial-influenced effects. The song's lyrics suggest a form of mind control through deceit—government lies—but also refer to physical control as well, in the form of "high-tech slavery." The solo preceding this line is also more disheartening than liberating, a brief, repetitive series of high-pitched eerie tones followed by two repetitive riffs, another

short, repetitive mid-range lead and, just before the vocals return, a brief, repeating and percussive, if faster-paced, riff—a foreshortened attempt at autonomy within an atmosphere of mechanical oppression.

The song "Insect" is even more explicit than "Bio-TV" or "Cosmic Conspiracy" in its condemnation of 'group think,' but relies on its sonic markers to associate control with a larger technological system. The song demonstrates the same emphasis on repetitions of short, percussive riffs, arranging the few chords of these riffs in mechanical rhythmic patterns. Alluding to industrial music with a sampled male voice that sounds like a computerized instruction or warning, "Insect" evokes technology and the machine with the whirring effects and piston-like hits of its opening seconds, as well as the precision and coordination of the rhythm section's performance. The band performs with the united effort one might attribute to the "mindless" "victims" of "overbearing manipulation" described in the lyrics, who wish to "join in" and "worship the god of control." The performance, mimicking the steady percussive motion of heavy machinery, also evokes Bogue's notion of metal music as "massive sonic machine" (*Deleuze* 95).

Lyrically, *Negatron* offers little hope for the future and no solutions for the problems it identifies. The most uplifting line on the entire album can be described as such only for its refusal to form a pessimistic conclusion; stating, "future destiny unknown," it at least creates an opening for the possibility of a better future ("Cosmic Conspiracy"). Some of the songs describe attempts to escape from a doomed planet, but "Project X" suggests that humans will continue to create problems for themselves on their new home and "Meteor" tempers its references to "freedom unbound" with its more prevalent negative imagery ("desolate," "depressed," "destroy, terminate," and so on). Similarly, "Insect"

suggests people are "leaving this wasteland toward the sky," but that promises of "salvation" are empty; "damnation" is really what these people face ("Insect").

Langevin says he "really tried to be optimistic" and believes that humanity is "here for a long run" but he is disturbed by people's tendency to "close their eyes and look away" from the world's problems (Langevin). Yet even just the band's willingness to describe specific problems—"overpopulation" ("Project X"), war ("Planet Hell"), a lack of independent thinking ("Insect," "Bio-TV"), for example—demonstrates a critical impulse in Voïvod's negativity, much like that brief moment of lyrical ambiguity in "Cosmic Conspiracy." But the most significant markers of the band's affirmation of human potential and the hope of future recovery lie in the album's sound. Voïvod frequently offers temporary release from the hope-draining onslaught of pessimistic lyrics and oppressively repetitive and monotonous riffs, the kind of escape Walser associates with the liberating guitar solo and with other deviations from metal's steady and weighty momentum—the songs on *Negatron* often demonstrate efforts to break away from the album's otherwise relentless rhythmic pulse.

Despite *Negatron*'s coherence of structure (the short, repetitive patterns) and timbre (low frequency power is predominant, along with distortion and harsh vocals) and minimal melodic development (riffs and vocal lines that move through short sequences of a few notes or chords at most), the album offers more complexity and deviations than a cursory listening experience might suggest. Rather than a simple verse-chorus-bridge structure, something along the lines of ABABCB, the songs tend to work through a larger series of riffs, some repeated, but each with a slightly different rhythmic and melodic pattern and often shifting tonality. The opening track, "Insect," for example, includes at

least eight distinct parts, most of which occur more than once. Along with the sheer number of riffs written for the album, *Negatron*'s complexity (and thus, by extension, human individuality and autonomy) shows up in the band's comfort with a range of straight and syncopated rhythmic patterns, and the fluidity of tonality, from nearly atonal moments to the more traditional rock/blues tonality of "Nanoman."

Although the solos on the album do not demonstrate the virtuosity generally associated with metal guitar solos, they do offer deviations from not only the relentless rhythmic pulse of the songs but also the dominance of the low-end rhythm section. The solo in "Nanoman," for example, provides release, even liberation, with its brief burst of virtuosity and simple and surprisingly light-hearted ending, taking away the sting of the song's portrayal of nanotechnology. The song ends on the rising vocal melody of its chorus and an escalating urgency in the drums (the snare hits increase in frequency)—the final five drum hits and guitar chords more an affirmation of escape than a reprisal of the mechanical opening.

As the above reference to drum rhythms suggests, changes in the pace of percussive strikes or guitar strumming also have an uplifting effect on the album, in contrast to the slower, more controlled, mechanical pace established in most of the songs. "Reality?", for example, disrupts the steadiness of its rhythm section with syncopation and offbeat hits, but its strongest suggestion of escape lies in the thrash metal breaks that interrupt its already sped-up tempo (this happens at the end of "Insect" as well). These sections echo the urgency of "Nanoman"'s final moments, briefly suggesting human potential, and like "Nanoman," "Reality?" demonstrates an increasing intensity towards its end, upping the pace of the vocal performance as well as drum hits. This kind of gradual speeding up and

intensification tends to undermine the steady power evoked by the much more mechanical progress driving the bulk of the album.

Such deviations do not entirely dissipate the oppressive atmosphere created by the album's otherwise slower, crushing pace, and *Negatron* ends with one of its most 'industrial' tracks—"D.N.A. (Don't No Anything)"— and the strong sense of mechanical control that music evokes. But escapist moments found in the syncopated riff, the thrash break, or the guitar solo demonstrate a potential flaw in the oppressive mechanical system. By evoking the chaotic breakdown of metaphorical machinery and power networks they suggest that such systems are unreliable or unstable. If the system and its destructive patterns can be broken, *Negatron* implies, the problems Voïvod identifies might yet be solved.

Phobos

Voïvod released its next musical dystopia two years later in the form of a full-blown concept album, *Phobos*, which continues the band's ongoing critique of contemporary problems within the framework of science fiction.[20] Much of the representational pattern Voïvod laid down on *Negatron* reappears on *Phobos*, and because of similarities in sound, approach, and personnel, *Phobos* inspired similar (divided) critical responses—Prato, for example, observes no significant change from one record to the other ("Phobos"). Yet there are marked differences between the two albums, as some reviewers and fans have observed. While *Negatron* reveals the band combining its

[20] The name *Phobos* blends images of ancient myth, outer space, and fear, for those aware of the references. Phobos, a word etymologically linked to 'phobia,' was the name of a Greek deity who represented fear (Dictionary.com). It is also a satellite of Mars (World Book)—a planet named after the Roman god of war (World Book).

underground metal roots with industrial music in a more 'alternative' approach, *Phobos* revives more of the band's earlier progressive tendencies as well, particularly in the use of atmospheric 'sf' sounds and effects and in the return to the concept album form. While *Negatron*'s songs address related ideas, most of which can be easily linked to science fiction, *Phobos* brings back the Voïvod character (Langevin) in an sf narrative that develops from song to song. The band uses its industrial/prog/metal style of songwriting and performance to support and expand upon the story told in the lyrics, which are less explanatory than evocative.

Reviews of *Phobos* often commented on the atmospheres or feelings the record evokes—its "dense and closed-in sound" (Prato, "Phobos"), its "otherworldly" and "hypnotic" qualities, its "urgency," and its sense of "cataclysm" and "terror" (Ansier). Some highlight the character of specific elements—Forrest's "inhuman" and "mechanical" vocal style and the "expert precision and timing" of D'Amour's guitar performance, for example (Gaudrault). The technological, dystopian sound of the album contributes to and supports its thematic preoccupations, but neither the themes nor atmospheres are exclusively forbidding. *Phobos*, like *Negatron*, addresses the struggle for autonomy and survival in a highly mechanized and technologized world, offering up images of control and destruction, questioning the boundaries and differences between organic and inorganic life, but also evoking a sense of opposition against oppressive mechanistic systems.

Lyrically, *Phobos* describes a planet suffering from the misuse of technology and technologically enforced oppression, but the verbal narrative encompasses moments of anarchy and resistance as well as control, both of which are embodied in the story's main

character, Anark ("Rise," "Mercury," "The Tower," "Forlorn"). Individual songs deal with Anark's reawakening from a cataleptic state to disrupt the system of control already in place on the planet ("Rise," "Mercury"), with the use of technology as a controlling force ("Phobos," "Neutrino"), with the destruction of the planet and people through technoscience ("Bacteria"), with technological/scientific processes ("Quantum"), resistance ("The Tower") and dehumanization ("Forlorn").[21] Explaining the album, Langevin emphasizes his fear that someone has developed "beam weapons that can scramble the brain long enough to take over part of an army," and his lingering concerns about the HAARP project and the possibility that it may be used for surveillance and control (Langevin). With such anxieties providing a focal point, Voïvod crafted a narrative in which the band's namesake character awakens to a world where advanced technological weapons have developed out of control and demand even stronger weapons to counteract them (Langevin). Using mind manipulation and pure aggression, this character takes control of the planet (Langevin), "destroys everything and goes back to sleep" (Langevin qtd. in Ristic 6); however, there are indications in the lyrics and music that the oppression and annihilation is not all encompassing.

Langevin's uneasiness regarding HAARP surfaces in one of the photos underneath the CD's disc tray—a distorted image of a field full of HAARP towers (Langevin; see fig. 3). In contrast to *Negatron*'s fully computerized artwork, the cover and inner images for *Phobos* are a mix of Langevin's drawings and digitally manipulated photographs,

---

[21] Song by song explanations of the lyrics are available at Voivod.net; they situate the narrative as another chapter in the story of the Voïvod character, as has Langevin, both in my interview with him and in interviews around the time of the album's release. I believe it is important to acknowledge these interpretations; however, my focus is on the album as a complete text in and of itself, and therefore my critical reading relies on what can be deduced from the lyrics, artwork and music rather than on supplementary texts.

sometimes superimposed, and the booklet maintains much of the earlier record's purple and red colouring. Blending horror and science fiction, the technological and the organic, this artwork includes pained looking figures with protruding cables (see fig. 4), a static-producing Van De Graaf Generator (see fig. 5), magnified cells (see fig. 6), and the HAARP antenna towers among other images. This mix of 'real' technology and Langevin's sf-inflected drawings implies a link between Voïvod's extrapolations and contemporary society (see fig. 7). The only video released for *Phobos* encourages the same connection, featuring elements of the contemporary 'reality' (performance shots of Voïvod, someone welding), science fiction (television monitors occasionally flash sf images, such as the alien pictured in the *Negatron* booklet), and dystopia (the setting is stark and dingy, and several sepia-toned shots focus on a person who appears to be locked in a large cell-like room). Like the album art, the video does not illustrate *Phobos*'s story as much as it evokes some of the same imagery and ideas.

Phobos also shares with *Negatron* the use of electronic effects, but spreads them more evenly across the album, particularly in the brief interludes at the beginnings and ends of songs.[22] The vocal processing throughout *Phobos* often distances Forrest's voice from human speech, traditional Western singing and the usual extreme metal vocalizations, sounding more like a machine at times (in sections of "Quantum," for example). However, the effects and interludes on this record also verge on pastiche, replicating and displacing the 'high-tech' blips and bleeps and the 'spacey' Theremin sounds used on the sound tracks of mid-20th century science fiction films. The ways in which the band

[22] In my interviews with Forrest and Langevin they both mention the role of alternative/industrial/metal musician James Cavalluzzo in helping Langevin put these 'computerized' interludes together, which contribute to the album's "science fiction feeling" (Forrest); see also Corridor of Cells interview.

continues to embrace electronic effects and technological sounds on *Phobos* implies an appreciation for technology's potential that undermines the album's more technophobic elements.

In a very obvious connection with *Negatron*'s subject matter, *Phobos* presents images of technology as a means of planetary and human destruction, particularly in the song "Bacteria." Despite the title, the song's lyrics suggest that it is not a natural disease but the "plague" of unharnessed science and technology that is killing the world and its inhabitants, perhaps expressing a more widespread fear that "[t]he development of techno-sciences has become a means of increasing disease, not of fighting it" (Lyotard 144). This planet is already damaged—"red rainfalls poison the sky"—and worse is yet to come—"chemical infection," "synthesized corruption and decay," and "a deadly bacteria" all threaten to "spread," leading to "blood and death" and a "dead planet." The lyrics to "Bacteria" lack the references to human agency found in similar songs on *Negatron*, but in the context of *Phobos*'s narrative it becomes clear that the planet's decline has been orchestrated by a controlling "power" ("Quantum")—the deadly bacteria did not produce and release itself.

This ruling power makes use of technology as a tool for oppression as well as destruction. Surveillance is one of the ruler's methods of maintaining his dominant position—he uses a "spy web satellite" with "global" range, and with the "system" that supports his "satellite network" he initiates a "program" to spread "fear" ("Phobos"). "Complete world control" involves manipulation of people's minds as well as bodies; the dictator's "program" is capable of exerting "strong mind control" and creating "false memory" ("Neutrino"). These forms of technological oppression threaten autonomy and

liberty of thought as well as physical freedom, much like dehumanizing practices and technologies of Ingsoc in *Nineteen Eighty-Four*.

The music throughout most of "Phobos" features short, repetitive, mechanical riffs of anywhere from one to four chords—much like the majority of the riffs on the album these demonstrate little rhythmic or melodic variation within the guitar parts or between guitar, bass and drums. Voïvod pairs this steady, oppressive onslaught from the rhythm section with heavily processed, machined vocals. The robotic voice delivering the phrases "log on," "locked on" and "log out" ("Phobos") is unrecognizable and nearly unintelligible, but even Forrest's more melodic lines demonstrate little range and movement are more harshly whined than sung. Forrest's performance abandons any semblance of melody as he 'growls' observations and instructions like "data system on / enter master plan," and the guitar at this point, supported by the steady weight of bass and drums strikes the same chord repeatedly, only briefly shifting to another chord or two for contrast ("Phobos"). The song focuses on the technology-infused timbres and rhythms of industrial and tends to avoid displays of virtuosity, evoking the technological system of control described in the lyrics.

"Neutrino" also features the same short, repeated riff structure, particularly in the bars leading up to lines such as "program correction" and "repress resistance," which Forrest delivers in more of a distorted industrial whine than a metal growl or scream. The three-chord riff here is low-pitched, thick sounding and plodding, and even though the rhythm becomes more syncopated when the voice begins, it maintains a steady, mechanical pulse. "Quantum" is also built around relentlessly repetitive guitar patterns. During the verse, and references to the ruler's "power" and cloning project, the riff focuses on the

straight repetition of one chord, striking a second chord occasionally but systematically for contrast, underscoring it all with a fairly steady pounding of the drums and no audible deviation in the bass part. Even later riffs that move through four chords still repeat with an oppressive regularity. Further evoking the non-human/non-organic nature of this oppression, the layers of distortion and electronic effects saturating most of the material on *Phobos* underline the ubiquity of both technology and the system of which it is a part.

Some of the songs on *Phobos* create a sense of struggling rather than integrated forces, pitting resistance—the battle for autonomy—directly against the system's technology of control. For example, in "Neutrino" the tyrant is attempting to 'correct' his "mind control" program that has been threatened by "resistance" ("Neutrino"). This section of the narrative first unfolds to the accompaniment of the three-chord riff mentioned above, whose rhythm gradually becomes more insistent and crushing, with more rapid, straight guitar strumming and more frequent, steady drum hits. But the riff gives way to one with a stronger melodic progression (though still short and only four chords) until this riff too is interrupted—by a brief call and answer section in which a low-pitched, short and repetitive line from the rhythm section duels with a high-pitched melodic flourish played on the guitar alone, oppressive power against autonomous acts of sonic liberation.

Such disruptions provide an aural manifestation of the resistance that the oppressor, with his mind control program, is trying to repress. Musically, "Neutrino" eventually implies that this repression has not been entirely successful—the final repetition of the word "repress" comes in a desperate shout, and the song ends as it began, with a climbing guitar line, its ascent suggesting hope. The album's verbal indications of hope are no

more definitive—suggestions that a "new light" is rising ("Rise"), that one should "fear not tomorrow" ("The Tower"), that one world, at least, has ultimately been saved ("Forlorn"). But even that final salvation is ambiguous—lines like "lost in this world" and "loss of this world" make it unclear whether Anark has destroyed one planet to save another, or leaves behind a saved planet, losing his connection with it in his return to a cataleptic state ("Forlorn"). By the end of the narrative, his power has been taken from him ("Forlorn"), perhaps giving society the chance to recover and develop in a more utopian direction.

This open-endedness arises, in part, from the ambiguous quality of the narrative's main character(s). When the songs mention "Anark" the references are often hopeful, alluding to a sense of renewal and rebirth ("Rise"), reformation ("Mercury"), opposing an enemy ("The Tower"). However, the lyrics of *Phobos* tend to be vague about the players—who is enemy and who is saviour, who oppresses and who resists. Online explanations of the songs, and Langevin himself, identify the Anark figure as the tyrant. Yet within the album's lyrics, Anark seems to have a split personality, or to even be two separate characters. None of the songs that refer to the technological system of oppression actually refer to Anark by name, and the lyrics seem to describe both the lonely leader of a resistance trying to save the planet from destruction and the dictator controlling the oppressive systems that threaten the planet's well-being.

Humanity also becomes an ambiguous concept on *Phobos*. The lyrics offer no clear distinctions between organic and inorganic life, alien and human, and rather than a dichotomy of human against machine *Phobos* contrasts autonomy and oppressive control. With references to cloning ("Quantum") and "dead people" ("Neutrino"), the album

describes characters that defy standard definitions of human life, an ambiguity that is enhanced by the electronic processing and 'unnatural' harshness of Forrest's vocal performance. The song "Rise" introduces Anark's slippery nature, describing him as he "lies sleeping in death" until a radiation signal "activat[es]" him to begin a "second life," which could imply that he is an organic being responding to some sort of technological treatment or a machine that can be switched back on ("Rise"). The cloning, replication, and other advanced scientific processes the tyrant engages in suggests that even if he had been a 'normal' human at one time, this may no longer be the case—his "structure" has been "alter[ed]" ("Quantum"). The line "reset dead people" in "Neutrino" further complicates the notion of human life, but references to death may also be a metaphor for the loss of autonomy and vitality suffered by the people oppressed under this system of control. In the context of the album's representations of oppression and resistance, resistance becomes the most vital sign of individuality and autonomous life.

Without any traditional guitar solos, soaring leads, or singing, the individual or autonomous element in *Phobos*'s sound is reduced to short bursts of vitality, attempts to break away from the technological systems of oppression evoked by the rhythm section. Nearly every song offers a brief window of respite from the mechanical pounding of guitar, bass and drum, as most begin with an interlude (or introduction) of mostly non-musical sound effects that seem as much an opportunity for reflection as a chance to emphasize the technologically charged atmosphere of the record. Another moment of openness, in contrast to the rhythmic power and oppression dominating most of the record, arises with the track "Temps Mort." This pairing of more natural instrumentation (an accordion melody) with a wash of electronic hums, booms and other synthetic tones,

seems, with its mournful melody and placement after "Bacteria"'s talk of a dying planet, to be a lament for what the world will (or has) become under this technological system of oppression.

While these examples demonstrate moments of release, even liberation, from the crushing weight of the record's low-frequency rhythmic pulse and imagery of technological oppression, autonomy and individuality take shape in variation and unpredictability, particularly in the guitar parts. The songs that serve as calls to action—"Mercury" and "The Tower"—particularly convey a sense of vitality. "Mercury," for example, starts off at a more upbeat pace than the previous track, and features more melodic and rhythmic variation as well as some independent movement in the bass, and a groove-oriented break with a little fast, technical guitar work that leads into lines referring to freedom. Forrest identifies this song as one of a few on the album that create openings for hope, by "set[ting] up a theme of rise and beginning" (Forrest). "The Tower" is similarly upbeat, but offers a couple of other deviations as well, such as the guitar and voice moving in unison on the line that calls for resistant action ("to the tower"), and two breaks where the relentless drive of guitar, bass and drums drops completely away, leaving undistorted or "clean" guitar tones and a few electronic sound effects—a deviation within the album's dominating rhythmic pulse.

Disruptions of the album's mechanical pacing and low-frequency pounding make it difficult to view *Phobos* as a celebration of noise and destructive imagery. Even the record's most chaotic moment, a thrash metal riff at the end of "Forlorn," reflects Anark's personal struggle rather than any apocalyptic disaster—he is "alone" at this point, preparing to leave the world to resolve its own difficulties. When he descends into

"catalepsy," as synthesized accompaniment winds down in pitch, speed and volume, his sadness and weakness do not dispel a sense of optimism for the planet's future potential. Forrest also recognizes this open-endedness: "I think it leaves at the end of the record a question mark in a sense. It depends on how you want to look at it, but yeah, I believe there's hope" (Forrest). Whether this society will successfully redeem itself we do not know, but we at least leave it with the chance to do so.

Demanufacture

The year that marked the release of Voïvod's *Negatron* (1995) also saw the release of Fear Factory's second full-length studio album—*Demanufacture*. While *Negatron* represented a significant change in Voïvod's line-up and sound, *Demanufacture* is a logical progression from Fear Factory's earlier experiments in the unification of extreme metal and industrial and its thematic exploration of the relationship between human and machine, the individual and the technologically advanced society. While references to Fear Factory's conceptual preoccupations tend to simplify the issue to an oppositional pairing of humanity and technology (Ingham 82; *M.E.A.T.* 5; Roadrunner), the band's attitude toward technology, like Voïvod's, is more ambivalent than technophobic, and even the album's title implies a critical approach—a deconstruction of technological development and human identity in a highly technological world.

Critics responding to *Demanufacture* continued to refer to Fear Factory's fusion of different sounds, broadening the scope from simply industrial music and death metal (Bogue, *Deleuze* 93; Birchmeier) to include progressive rock (Birchmeier), alternative metal (Masters 34), and thrash or speed metal (Masters 34; McDonald)—a combination

of genres very similar to Voïvod's at this time, if not in the same proportions. Several writers referred to the music in technological or science fiction terms—for example, calling *Demanufacture* a "towering silicon-hearted monolith of circuit-encrusted metal" (Berelian 123) or a "technological achievement of cyborg metal proportions" (Popoff, *Top 500* 71), or describing its "machine-gun guitars" (Scaruffi), "robotic and mechanical" drumming (Roadrunner) and "machine-like" performances (Birchmeier).

Such descriptions are not surprising, as the sounds of industrial machinery and advanced technology permeate the record. Several songs feature the metallic clanking of machinery ("Demanufacture," "Body Hammer," "Pisschrist"), but the sheen and precision of the samples tends to evoke the digital precision of computers and cyberpunk more than Victorian factories, which comes through in the incorporation of high-tech imagery ("Demanufacture," "Flashpoint," "Zero Signal"), or 'otherworldly' effects ("H-K,""A Therapy for Pain"). According to Fulber, guitarist Cazares "really wanted this high-tech sheen on everything" (Fulber), an assertion that is supported by Cazares statement that Fear Factory worked with Fulber because he "is so high tech" (qtd. in Small 3).

Technology is a prominent subject in the lyrics of *Demanufacture* as well, and technological imagery colours the band's descriptions of the dehumanizing effects of contemporary society ("Self Bias Resistor" or "A Therapy for Pain," for example) and the failure of social and belief systems—government ("Demanufacture"), religion ("Zero Signal," "Pisschrist"), technoscience ("Replica," "New Breed," "Body Hammer," "H-K"). Bell describes *Demanufacture* as "an afterthought concept record" (Bell), a story

about the ugliness of conformity (*Digital Connectivity* 3) and a world where "individualism is taboo" (Bromley, "Fear Factory" 9).

The album's artwork reflects concerns about the loss of humanity, blending images of human and machine—band photos and skeleton parts, industrial refuse and digital distortion (see figs. 8-10). Descriptions of the band members as "heavy duty scarifier" (Cazares), "maximum effective pulse generator" (drummer Raymond Herrera), and "total harmonic distortion" (bassist Christian Olde Wolbers) carry on the musician/machine blurring implied in the first album's liner notes, and the album cover echoes this human/machine hybridity with images of human bones morphing into the shape of a barcode (see fig. 11). Merging sf concepts of monitoring and tracking people with technological markers and notions of commodification—using barcodes to scan and track products—the ribcage/barcode suggests that humans are becoming mass produced commodities that can be tracked by whomever has control of the appropriate scanning technology.

The lyrics also express notions of human/machine hybridity and address the experience of several 'cyborg' figures. The song "New Breed" merely implies the union of human and machine, describing a future stage in human evolution where the "cold rules" associated with hard science and computer processing dictate behaviour. But other tracks more explicitly identify cyborg characters. "Body Hammer," for example, portrays the human speaker as a mechanical tool, while "H-K (Hunter-Killer)" takes the human/machine comparison a step further, depicting images of a RoboCop-type character on a rampage of unauthorized revenge. The song gives voice to a person whose human consciousness lies beneath an "armored skeleton"—a "machine [that] is now alive" but

has become a weapon ("H-K (Hunter-Killer)"). Melodic keyboard lines and, for a short space, singing vocals, interrupt the more 'mechanical' and percussive delivery of the repeated line "I am a criminal," providing further indications that the machine and human both exist in this one body.

Like Voïvod, Fear Factory implies that technology itself is not the danger. Several lines from *Demanufacture* similarly point the blame away from technological and onto human problems— "hypocrisy" ("Self Bias Resistor"), contemporary "values" and government corruption ("Demanufacture")—and the songs frequently emphasize human responsibility by using melodic singing (rather than 'mechanical'-sounding vocalisations) to deliver lines describing oppression, such as "All these years they've tried to break you / to your knees" ("Self Bias Resistor"). Fear Factory's embracing of digital music technology throughout the album supports this interpretation—the band "did at least half of this record on computer" (Bell qtd. in Bromley, "Fear Factory" 9)—as does Bell's own perspective on technology. "I use technology as a tool, not as a crutch," he says (Bell). "I feel that technology is a great advancement for people. We have technology to better ourselves and our lives. Technology becomes a problem when it starts to take over your life" (Bell qtd. in Ciavarella 14).

Yet Fear Factory often casts the human-technology relationship as antagonistic, associated with exclusion from society and violence. The antagonism is highlighted in "H-K (Hunter-Killer)" by a repeated sample in which a voice says, "war against the machine," but it also surfaces in phrases like "human machines of hate" ("Self Bias Resistor") and in the violent actions of the speaker in "Body Hammer," who becomes a "tool of severe impact" ("Body Hammer"). The bridge section of "Body Hammer"

features a call and response exchange between the growled/shouted vocals describing a series of violent actions—"pound," "strike," "smash," for example—as well as several metallic-sounding drum hits or samples, while underneath the guitar repeatedly and aggressively performs a short, nearly atonal riff. Passages such as this throughout the album associate mechanical/machine imagery with violence, underlining the potential threat of technological power.

The lyrics of "Replica" also suggest that advanced technology could have dangerous consequences, but the song mixes violent images and sounds with descriptions of personal harm rather than large-scale destruction. The chorus consists of the repeatedly growled phrases "I am rape" and "I am hate," and the song features more of the aggressively performed mechanical riffs that dominate the entire album. However, the speaker is also a victim, "conceived so violently" and lacking "love," and the threat embodied by this character is offset by a sense of sadness for this "bruised and darkened soul" that expresses, in a sung melodic passage, the wish to be spared future pain. The lyrics only imply a technological element—in the title, "Replica," and in a reference to the character as "a duplication"—but the song's video brings out this technological aspect through a subsidiary narrative that shows the 'birth' of an adult clone in a coldly lit morgue/laboratory. As the song nears its end, it makes the association between technoscience and trauma explicit by juxtaposing the word "pain," which flashes on the screen, with brief shots of the clone holding his head and screaming.

The heavier, predominant, passages of steady, percussive riffs performed by Fear Factory's rhythm section demonstrate a machine-like precision and repetition that creates an atmosphere of mechanical oppression, while the samples of metallic clanking and

banging tend to emphasize the use of technology as an oppressive force. The percussive style of Cazares' guitar playing is particularly poignant, highlighting the influence of industrial music and lacking the virtuosic or liberating solos of more traditional metal. The song "Self Bias Resistor" offers a particularly good example of *Demanufacture*'s sonic representation of oppressive systems of technological control. Like similar passages on *Negatron* and *Phobos*, the song features several short, repeating riffs of one or two chords, the united force of guitars, bass and drums evoking, perhaps even more clearly, a "massive sonic machine" (Bogue, *Deleuze* 95). The bridge separating the first two verses, for instance, pounds steadily at one riff, interrupting the lyrics' call to "rise up" and "fight" the forces eroding one's mind. This riff returns for the condemnation of "hypocrisy" and "hate" later in the song and persists through further calls for "resistance" and escape from "conformity," temporarily undermining the song's rebellious impulse.

The mechanical motion and repetition of *Demanufacture*, the distorted 'machining' of the voice and instruments, and verbal images of desensitized, cyborged humans, creates a technological environment in which humanity becomes like, even part of, the machine and the rationalized, systematic power driving it. The suggestion that humans have become commodities, captured most vividly by the ribcage/barcode image on the album cover, also takes *Demanufacture*'s representations of mechanical conformity beyond the technological—into the capitalist realm. While much of the record is not specific about the political and economic slant of the dehumanizing technological society it portrays, the band's cover of a Head of David song called "Dog Day Sunrise" brings out the socialist critique associated with the concept of downtrodden worker. In the context of *Demanufacture*'s oppressive technological sounds, the song's reference to "working

overtime underground" evokes the exploited underground machine operators of *Metropolis* (1927).

Along with these images of physical oppression, *Demanufacture* raises the issue of misinformation and brainwashing through its emphasis on hypocrisy, deceit and lies ("Demanufacture," "Self Bias Resistor," "Flashpoint," "Pisschrist"). Such suggestions of control gained and maintained through dishonesty, or by misleading people, resonate with the references to conspiracy and mind control in Voïvod's work of the same period. Weaving together notions of deceit, hatred, oppression, technology, and control, Fear Factory's concept is also reminiscent of *Nineteen Eighty-Four*—the doublethink and continual rewriting of history practised by Ingsoc, the use of technology for surveillance and torture, the conformity of party members, and the emphasis on hate as a unifying emotion. Bell certainly acknowledges the significance of *Nineteen Eighty-Four*, and refers to Orwell as a "forward thinker" (Bell). However, Fear Factory's references to lies and the harmful potential of high-tech development may also be symptomatic of the postmodern sense that promises of technological and scientific "progress" are empty and meaningless (see Lyotard 143-144), falsehoods repeated to hide from people the fact that society is not progressing at all.

The most 'human' and resistant element in this atmosphere of misinformation and technological oppression, and one of the most optimistic, is Bell's melody-based singing. Although effects are still heavy on these lines, they offer the closest timbre on the album to a 'natural' sound and disrupt the mechanical momentum and power of the rhythm section. Bell also describes the "singing parts" as "hopeful parts" and "transcendent parts": "Whatever I'm singing it's my soul singing and it's nothing else. It's not

programmed. It's not produced. It's a natural feeling, my passion. So within the music, and definitely ideas, there is hope" (Bell; see also *Digital Connectivity* 3). He offers the song "Self Bias Resistor" as an example: "It's angry, it's pointing fingers, it's making statements in a very aggressive way, but when the chorus hits it's like 'all these years they tried to break you to your knees / anger scours right through your veins' and basically 'now it's time to take control' and there is hope in that control – 'take control of your life'. And that's what it's all about" (Bell).

The uplifting potential of Bell's singing often finds support in the melodic movement of soft synthesizer timbres that, while not organic, provide a distinct contrast to the mechanical and harsh tones of guitars, bass and drums. According to Fulber, the contrast was deliberate: "They had the really heavy stuff and they had the sort of ethereal more melodic passages and I think all we did, or at least all I was trying to do, was highlight that more. [...] So the heavy stuff had it really heavy and really mechanical, and then had it open up, like sort of show turmoil and then show hope, so there's a light at the end of the tunnel, so it's not just all doom and gloom" (Fulber). "Self Bias Resistor" offers an example of this too—not just the contrast of softer synthesizer tones but also the melodic fusion of human and machine. As Bell sings about rising in resistance after years of crushing oppression, a united vocal and keyboard melody ascends above the repetitive pummelling of the rhythm section, creating an opening for optimism. This merging of keyboard textures and the human voice is another indication of Fear Factory's refusal to take a simplistic technophobic stance, and the development of these unified sections into moments of musical transcendence offers further proof.

Transcendent moments occur throughout the record but reach a pitch at its end. The original issue of *Demanufacture* concludes with a song called "A Therapy for Pain," a slow piece awash in chant-like vocal and keyboard lines and the *celestial chorus.* Removed from the mechanical timbres and percussive performance styles that dominate the rest of the album, the repetition here takes on a ritualistic rather than technological quality, and "A Therapy for Pain" becomes the work's transcendent culmination, a final escape from technological oppression. The lyrics move toward transcendence along with the music, beginning with a submissive welcoming of death but taking on a more hopeful quality as the song progresses—moving "into realms of light" and literally denying death ("A Therapy for Pain"). The continued layering of synthesizer melodies, textures and technologically-toned samples suggests that this escape from oppression is not a rejection of technology, and the unification of organic and technological sounds, particularly when considered in relation to the lyrics, suggests that transcendence involves a transformation into a new state of consciousness or being, where the relationship between human and machine is no longer antagonistic, or possibly into a new hybrid stage of human evolution.

Even these final transcendent moments are tinged with the ambivalence characteristic of Voïvod and Fear Factory's cyber metal critiques. The transformation is not entirely innocent or lacking in danger; when atmospheric sound effects take over in the song, after the human voice and keyboard melodies drop out, soothing sounds begin to mingle with harsher noises. "A Therapy for Pain" finally resolves in a swirl of sound effects shortly after the emergence of a sustained 'angelic' choral tone (the final strains of the celestial chorus) and even this resolution is ambiguous—neither the 'angels' nor the harsher

soundtrack prevails. Even in its most optimistic expressions, Fear Factory is suspicious of easy answers, certainly of salvation, and thus the record exhibits both hope and fear. With its portrayal of the failure of social, governmental and belief systems, and the dehumanizing effects of contemporary society, *Demanufacture* implies that salvation must come from within, and ultimately reminds us that the future is, as yet, beyond anyone's ability to predict.

Obsolete

The next studio album Fear Factory released came out three years later, and like Voïvod's *Phobos*, *Obsolete* is a concept record, its dystopian narrative unfolding from song to song. But *Obsolete* is even more explicit with its story—the liner notes for the album resemble a cinematic screenplay and offer plot scenarios and scene descriptions between the lyrics. The prologue situates the tale in a technological dystopia, a world in which humans have become subjugated to a system of machine control. This text suggests that there are two kinds of humans in the dystopian society—those who live their lives obediently according to the "linear programming" imposed by the machines, and the rebellious dissidents who "secretly congregate" and maintain their humanity by causing disruptions, injecting chaos into the oppressive machine system (Fear Factory, *Obsolete*). Berelian calls the record a "movie captured on CD," "one of [Fear Factory's] premium cyber experiences" and notes *Terminator*-esque undertones in its story (123-124).

A future war between humans and machines is likely the similarity between *Obsolete* and *Terminator* that Berelian refers to, and there are certainly clear indications that, as in

Terminator, the machines in *Obsolete*'s narrative intend to "eradicate humanity" ("Obsolete"). The film focuses primarily on a 'here and now' though, and *Obsolete* is set entirely in a possible future, where humankind has lost its dominant position and is struggling to maintain a degree of autonomy and individuality or, in many cases, simply fighting to stay alive. Yet despite the explicit statement in the lyrics that "man is obsolete," it is possible to read this declaration as the misguided perspective of the machines, which do not realize that they themselves may soon be obsolete because of their inability to "compute" the human "variable" (Fear Factory, *Obsolete*). This is the kind of ambiguity that infuses the entire record, and surfaces throughout Fear Factory's catalogue—"Fear Factory's songs are questions rather than answers" (Metal Hammer UK 33).

While *Obsolete*'s narrative represents a clearer expression of science fiction, its sound demonstrates somewhat more flexibility and range of expression than *Demanufacture*'s, paralleling Voïvod's incorporation of more progressive elements on *Phobos* in comparison to *Negatron*. Fear Factory continued to use digital music technology and repetitive song structures on this record but moved slightly away from the precisely programmed techno/industrial sound. Further stretching genre expectations for extreme metal aggressiveness, the band weaved in more melody, as well as hip hop influences, and collaborated with an orchestral string ensemble. For some listeners and reviewers, this experimentation is the album's strength (Bruni; Prato, "Obsolete"), though some considered the changes to be merely superficial (Bromley; Popoff, *Top 500* 193; Prato, "Obsolete"), and *Obsolete*'s softer elements also provoked accusations that Fear Factory

had "sold out" (Popoff, *Top 500* 193).[23] Both Bell and Fulber recall that Fear Factory was aiming for a warmer, less mechanical sound on *Obsolete* as a way of portraying the album's concern with the "human element" (Bell).

Despite the prominence of *Obsolete*'s concept, few reviewers have commented on the record's lyrics or the relationship between the music and the story. According to Bell, *Obsolete* was the band's first "intentional" concept album. He attributes the title and the main idea behind it—humanity becoming obsolete—to an old *Twilight Zone* episode, but says that the record was also a response to more contemporary social problems. He considers *Obsolete* to be "a warning" or "a foreshadowing"—the events he saw happening around him carried forward into the future (Bell). "During the time period between *Soul of a New Machine* and *Remanufacture*, we were living in Los Angeles," Bell explains, "and during that time period [there was] a lot of crisis, a lot of racial tension. That was the time of the L.A. riots, so there was a lot of 'demanufacturing' of society going on" (Bell).

Obsolete reflects this civil unrest with its harsh and oppressive tones, but it also has its more liberating moments. Bell agrees: "As angry as it sounds and as negative as it sounds, there's hope within it (Bell; see also *Digital Connectivity* 5). Thematically, the record's strongest suggestions of hope lie in the potential for humans to evolve into something better (literally or metaphorically), and this evolutionary thread figures into *Obsolete*'s artwork as well. While the album booklet features technical drawings and digitally distorted images (see figs. 12-13), many of the pictures suggest the process of evolution and seem part of a study of evolution at work. The sperm-like image of a brain

[23] In fact, the record was a stronger commercial success than the band's previous albums (All Music Guide, "Fear Factory").

with a curving spine for a tail (see fig. 14) offers the strongest suggestion of evolutionary development (see *Digital Connectivity*), but other images of disembodied teeth and skeletal parts (see fig. 15) imply a deconstruction of the current human form in preparation for the construction of something new. Still, *Obsolete*'s artwork is dark—primarily browns and blacks—and its pictures of disembodied eyes with barcodes instead of pupils (see fig. 16) revisit the themes of dehumanization and commodification depicted in *Demanufacture*'s booklet and art.

Outside of those barcode eyes, *Obsolete* abandons specific critiques of capitalism and commodification for portrayals of more tangible threats—the destructive potential of technology gone bad. "Hi-Tech Hate," for example, addresses the use of "weapons of mass destruction" in its lyrics and features some of the heaviest and most 'destructive' sounds on the record. Its descriptions of war—the "threat," "fears," and "systematic death"—fall in the fast-paced, harsher sections of the song. Blending extreme metal and industrial music in a short, repeating and crushing riff from the rhythm section, these passages evoke the destructive, controlling force of the technology.

Technology takes on a more personal threatening role in "Smasher-Devourer," which describes a law enforcement machine along the lines of the ED 209 from *RoboCop* (1987). Acting as a representative of the machine-run system, the Smasher-Devourer tries to woo its victims with promises of "salvation," alternately growling and singing the word, but the song begins and ends with images of oppression and destruction—a repetitive, unmelodic guitar riff, references to killing, the word "salvation" growled out—and the only melody in the final bars comes from a solitary, descending keyboard line.

Like *Phobos*, *Obsolete* addresses the use of technology to maintain control through "surveillance," or "scrutiny" ("Securitron (Police State 2000)"), and again Fear Factory alludes to *Nineteen Eighty-Four*, with the statement that "watchful monitors" are everywhere (*Obsolete*). The song explicitly describes this surveillance as a form of "oppression," the sacrifice of one's "rights" and one's "mind" in the name of "security" ("Securitron"). This is another of the heavier songs on the record, its short, repeated riffs demonstrating little melodic or rhythmic movement and evoking images of a technological system of control, while Bell's growling, 'machined' vocals describe the surveillance as a form of invasion and persecution ("Securitron"). The machine eyes of the security system "constrain every movement" until "freedom" is "an illusion" ("Securitron"). When the lyrics become confrontational, questioning the status quo and arguing that the sacrifice of privacy does not provide security, Bell shifts into 'singing' mode, his 'natural' voice emphasizing the sense of human resistance and autonomous thought inspiring the question.

A similar blending of short, repeating riffs with references to technology's control over humanity arises in the song "Obsolete." Machines, so advanced some are no longer discernible from humans, dominate the inferior and the weak, the humans who are on the verge of becoming "erased," or "extinct" ("Obsolete"). The liner notes introduce "Obsolete" as the speech of an "Enforcer" (a representative of the machine system), and just as the song creates no opening for the human element in its lyrics, its music also stays focused on the machine perspective. After a prelude, in which electronic sound effects whir around a distant, distorted voice (the enforcer speaking through a megaphone), the pummelling pressure of the rhythm section kicks in. Throughout most of

the verse, growled by Bell, the guitar barely leaves the one chord it repeatedly strikes, and while the riffs change as the song moves forward, the relentless pace does not, and never opens up to the more melodic passages that make their way into most of the songs on the record.

Like the other albums examined in this thesis, Fear Factory's *Obsolete* imbeds its images of humanity in an overall atmosphere of oppressive technological control, but the very title of this record points to a stronger investment in the fate and nature of humanity and human identity. Sonically, *Obsolete*'s deeper attachment to notions of humanity takes the form of more obvious markers of individuality and humanness than those on *Negatron* and *Phobos*, particularly the fairly numerous "natural" or undistorted vocal parts that occur with even more frequency here than on *Demanufacture*. The notion of 'not-machine' also has its place, specifically in the performance of a real orchestra on several songs, reminiscent of the use of the accordion on *Phobos*.

Also like the other albums under discussion, *Obsolete* does not depict technology as inevitably harmful. Bell states that the "machine" in Fear Factory's lyrics is not necessarily a "mechanical entity": "The government is a machine in itself. Society is a machine" (Bell). *Obsolete* is, therefore, not only about the possibility of human obsolescence due to technological advancement; the record is, in part, based on the idea that "the controlling machine of the world" is turning "human souls" into "mindless automatons" (*Digital Connectivity* 4).

Despite the album's concern with machines replacing humans, resistance actually requires association with rather than abandonment of technology and technological imagery, an indication that it is the ability to act and think autonomously that signifies

humanity rather than the absence of machine parts. An obvious example of this combination of resistance with technological imagery lies in the protagonist's name, "Edgecrusher," which evokes something more machine than human. Similarly, in the opening song, "Shock," he describes himself as a "power surge," another technological rather than organic reference. This line—"I will be the power surge"—also addresses the human/tech relationship by pairing this technological verbal imagery with one of the first examples of 'natural,' melodic singing on the album, the first of many passages that involve vocals and synthesizer moving in unison. Aside from these sections of melody and undistorted tones, the vocal performance on *Obsolete* is very harsh and unnatural ('machined' or 'dehumanized'), and *Obsolete* has no traditional guitar solos and few melodic leads to evoke notions of liberty, individuality and humanity within the oppressive weight of guitar, bass and drums.

One of the few exceptions is the song "Descent," which features a melodic guitar line, and Edgecrusher reflecting on the meaning of his life and the value of his resistance. Although this guitar lead exhibits limited range, it rises above the low frequency rumble of the rhythm section and acts independently in terms of both melody and rhythm. "Descent" ends on a 'human' note as well, featuring a layered chorus of distinct but independent melodies from voice, guitar and synthesizer in a rare example of harmony on the record. "Resurrection" is another of the more 'human' sounding songs on *Obsolete*, and even in its opening moments it excludes the mechanical, rhythm section onslaught to allow Bell to sing over a soft wash of synthesizer accompaniment. In the initial verse Bell sings in the breaks in the lines, escaping from the now steady pulsing of the guitar, bass and drums, and the song's chorus features Bell singing a major-toned melody that belies

the negativity of "fears," "wasted tears," and an inner "void" ("Resurrection"). The hopeful quality of the music finally infiltrates the lyrics in the final verse, with lines like "Reach for the sky" and "Revive a hope for mankind," and Bell's half-growled/half-sung delivery evokes the strength of this optimism as well as its humanity. A similar progression occurs in the song's video, allowing dystopian images—the murder of a man by a security device, for instance, or a man stepping into a 'phone booth' to purchase air to breathe—to eventually give way to acts of human resistance—such as a shot of the band determinedly setting a fire, and the Edgecrusher character raising his arms toward a flaming sky.

Obsolete proposes the idea that humanity's will to survive, as captured in those final moments of "Resurrection," is stronger than the machine's power of control (*Obsolete*), yet this notion comes up against assertions that acts of human resistance against the machine system are futile. For example, "Hi-Tech Hate" declares that humans are losing the war against the machines, and Edgecrusher spends most of the album running for his life, while the only other openly rebellious character kills himself in an act of self-destructive protest ("Freedom or Fire"). Yet the remaining autonomous humans do not give up the struggle—they keep "searching" for a solution (*Obsolete*)—and musically, *Obsolete* continually creates space for the sounds of human and individual expression, liberating the songs from the oppression of the rhythm section and affirming the survival of the human impulse.

While Fear Factory's narrative on *Obsolete* is fairly explicit, far more even than Voïvod's story on *Phobos*, *Obsolete* also works its way toward an ambiguous conclusion. The Securitron system appears to still be in control at the end, and the society remains in

its dystopian condition, but the narrative maintains a degree of uncertainty regarding Edgecrusher's fate, and by extension, the fate of the autonomous humans he represents. The final song, "Timelessness," describes Edgecrusher in darkness and pain, but the nature of his plight is not clear—whether it is spiritual or physical agony (the corruption of despair or the poison of some deadly weapon) we do not know. Bell describes "Timelessness" as "a very sad" or "melancholic" song but "a very hopeful" one as well: "In the story 'Timelessness' is referring to losing humanity, losing yourself, being lost in the darkness but finding your way out, seeing the light."

Musically, "Timelessness" smoothly blends the parallel melodies of an undistorted voice and a string orchestra with swirling waves of atmospheric synthesizer sounds and new age effects, including the celestial chorus. Bell's voice and the orchestra move together until his vocals withdraw, leaving strings and synthesizers to intertwine. Eventually the only sound left is a synthesizer tone that pulses like a heart beat, evoking a sense of the persistence of life. The song's emotional crescendo and decrescendo and its merging of organic and technological sounds creates the impression that Edgecrusher has transcended the limitations of his human form, rising above the oppressive mechanized system into the next stage of human evolution—a union of human and technology.

Much like "A Therapy for Pain" on *Demanufacture*, "Timelessness" is the culmination of a hybridity alluded to throughout the album, in the lyrics but also in the pairing of Bell's 'natural' voice with soft synthesizer sounds. Yet on *Obsolete*, hybridity never receives the same degree of suspicion as it does on *Demanufacture*, and while the swirling of synth and orchestra in "Timelessness" verges on dissonance at times, harmony wins out, offering a sense of musical resolution. And despite the album's

imagery of oppression and destruction, its liberating openings for human expression suggest that there is a possibility beyond annihilation and the status quo.

Negatron and *Phobos* evoke concerns about the use of technology and its potential for limiting, even eliminating, independent thought and autonomous action, but Voïvod seems even more disturbed by the potentially destructive, even fatal, possibilities associated with technological advancement. Although Fear Factory demonstrates similar concerns on *Demanufacture* and *Obsolete*, the younger band's mid to late 1990s cyber metal works are as preoccupied with the nature of humanity and human identity as with its manifestation in autonomy and individuality. Thus for Fear Factory, technology becomes more of a metaphoric representation of dehumanization. This may be, in part, due to Fear Factory's stronger ties with industrial music—the metaphoric use of technology to portray the dehumanizing forces of rationalization is something Karen Collins associates with industrial (Collins 103). Voïvod was certainly conscious of industrial music and of Fear Factory, but even in the mid 1990s still considered itself a "rock band" rather than an electronic act, embracing sampling and "atmospheric sounds" but rejecting industrial's sequencing and programming (Langevin qtd. in Hellfrost).

In the end, none of these albums—*Negatron* or *Phobos*, *Demanufacture* or *Obsolete*—offers the listener certain knowledge regarding the future of the people, technology, or systems described. Yet even while each band presents a dark, dystopian vision of what the future might be like, these albums critically establish a hope that an alternative might be achieved, and an assurance that resistance is at least possible.

Conclusion: Metal as Social Critique, and the Importance of Cross-Media Textual Analysis

If a critical dystopia is a text that challenges the distinctions between utopia and dystopia (Sargent 7-9), that maintains the possibility of hope and resistance within the dystopian form (Baccolini 30), that is ambiguous and open-ended (Baccolini and Moylan 7), and that identifies the causes of future problems in the mistakes of today (Fitting 156; Penley 126), then Voïvod's *Negatron* and *Phobos*, and Fear Factory's *Demanufacture* and *Obsolete*, are critical dystopian texts. Science fiction is not a dominant idiom within the metal genre, but dystopian expressions are common in metal due to the music's well-established associations with the imagery and sounds of chaos. Are the progressive possibilities of the critical dystopia characteristic of metal as a whole? That is difficult to determine without analyzing large numbers of metal texts, and making allowances for the thematic differences between various metal subgenres. However, Voïvod's and Fear Factory's works belong to a broader category of metal music that has devoted itself to exposing society's ills, demonstrating a social consciousness and a willingness to confront specific social problems rather than simply raging about the inevitability of misery and apocalypse.

Since the release of Voïvod and Fear Factory's cyber metal albums, metal bands have continued to record science fiction-influenced music. Star One's *Space Metal* (2002), for example, is an attempt to capture in music the ideas driving sf films like *Dark Star* (1974), *Outland* (1981), *Voyage Home: Star Trek IV* (1986) and *Stargate* (1994). Some projects looked to outer space for inspiration—Ewigkeit's *Starscape* (1999), for example,

Arcturus's *Sideshow Symphonies* (2005), or Space Odyssey's *Embrace the Galaxy* (2003) and *The Astral Episode* (2005).

More significantly, at least in terms of this study, is the fact that many metal bands have continued to use sf as a forum for social critique, and several have taken up Fear Factory's and Voïvod's concerns for human survival in a highly technological world. Steel Prophet, for example, followed its 1999 sf concept album, *Dark Hallucinations*, with a song expressing anxiety about the effects of ubiquitous and immersive technology ("Technocricide," *Genesis*, 2000), a subject explored from a different perspective on Icycore's *Wetwired* (2004), a record addressing the failed promise of digital immortality. *Machinery* (2002) by No Return deals with the dehumanizing effects of technological advancement, condemning the machinery of war and manipulative systems of power. Another high-tech sf concept album is Scorngrain's *Cyberwarmachine* (2004), which confronts issues like pollution, advanced technological weaponry, biotechnology and the rise of ever more powerful machinery. Queensrÿche has even returned to sf with *Operation: Mindcrime II* (2006), a sequel to its 1988 dystopia.

Social critique in a more general sense is still strong within the metal genre as well. Napalm Death, for example, continues to denounce injustice and other social problems in the new century; the band's latest record, *The Code is Red... Long Live the Code* (2005) tackles several contemporary political issues, including American military aggression. Misery Index is also strongly critical of social inequity and political oppression, confronting issues such as the political murder of protestors, 'slave' labour in developing countries, urban slums, and greed (*Discordia*, 2006). Kataklysm's most recent album deals with subjects like addiction and the failure of governments to provide for soldiers

returning from war (*In the Arms of Devastation*, 2006). Cattle Decapitation's music presents a vegetarian-informed examination of human depravity, with albums like *Humanure* (2004). Ewigkeit has shifted its sights from the stars to exposing hidden systems of power on *Conspiritus* (2005), and Ministry has recently targeted its industrial metal angst toward a critique of the current political administration in the United States (*Houses of the Molé*, 2004; *Rio Grande Blood*, 2006). Voïvod also continues to address social problems, though from a less science fictionalized approach; *Katorz* (2006), for example deals with issues like the war in Iraq. Fear Factory's latest music also demonstrates a sustained awareness of social problems, and *Archetype* (2004) revisits the band's concerns about the dehumanizing influence of a highly corporatized and technologically advanced society. Songs and albums such as these indicate the persistence of metal's engagement with contemporary problems and capacity for social criticism. Metal's awareness of these problems holds out the potential for hope and, through that hope, for change as well.

Close readings of many more albums than I have been able to examine here could lead to a greater understanding of metal's critical potential and of the social consciousness manifested in popular music in general. Popular music studies have at times prioritized music cultures and issues related to identity to the neglect of textual analysis, and while identity and music cultures are important areas of study, and recent studies are productively examining musical texts as well as identity issues, there is still a void in the critical discourse. This thesis is an effort, however small, toward addressing that void, and a further demonstration that popular music need not be overtly political or put forth an obvious progressive social agenda to be worthy of serious study. As Macan's

examination of progressive rock demonstrates, even music that favours "mythological narratives, science fiction apocalypses, or pseudo-ritualistic texts" rather than overt political statements may still contain elements of "social protest" (73).

Metal's rejection of dominant social norms and values has also led to attacks from conservative groups who view the music as a harmful influence on young audiences. While music critics have disparaged metal for what they interpret as its apolitical nature and lack of sophistication (see Macan 172-173; Walser 20; Weinstein, *Heavy Metal* 237-238), metal's conservative opponents object to the celebrations of sex and intoxication in the more Dionysian forms of the music and to the occultism and violence in the more 'chaotic' subgenres (see Purcell 80-81; Walser 138; Weinstein, *Heavy Metal* 238). As recently as November 2005, the popular media has bolstered this latter objection by implying a relationship between real violence and metal music with a documentary entitled "Death Metal Murders" that aired on the BBC's *This World* (Brave Words).

However, such condemnations of metal music and culture are often based on the most superficial examinations of the genre and misapprehension of its texts, motives and practices (see Gross 129; Walser 20; Weinstein, *Heavy Metal* 273-274), or in some cases a fear of the resistance metal embodies (Weinstein, *Heavy Metal* 270-271). Metal's pessimism and aggression is not a cause but a response and a symptom, and the genre is not always content to wallow in misery but in some cases is actually willing to confront specific problems and predict where they may lead society in the future. To deny metal's voice would be to ignore, even cut off, an avenue of active, critical discourse in society (see Walser 24; Weinstein, *Heavy Metal* 272-275). As a symptom, metal can tell us more about the concerns and anxieties troubling one segment of contemporary society. But as a

critique metal also has the potential to play a more active role, contributing to positive change. This thesis is an attempt to demonstrate metal's critical potential, a further instalment in the ongoing academic discussion that seeks to challenge simplistic condemnations of a genre important to so many people and so often misunderstood.

However, the fact that some metal music offers a degree of social critique does not prove that critical messages are actively read or understood as such by metal audiences. My close readings of albums by Voïvod and Fear Factory identify critical narratives that are available to the average listener—I recognized a degree of social critique in these albums when I first approached them as a fan, and references to their critical messages in the published interviews I consulted indicate that such messages have been recognized in popular metal discourse. Additionally, several of the academic sources I drew upon when outlining a 'semiotics of metal sounds' had themselves conducted, or consulted, audience studies and/or fan interviews to determine the appeal of the music and how listeners interpret particular sounds. Yet it is impossible to conjecture how the majority of metal fans understand these records and their narratives without extensive reception studies.

An illustration of this fact can be found in Weinstein's attempts to test fans' understanding of metal lyrics. Weinstein quizzed several Rush fans regarding their interpretations of the lyrics from the band's *2112* (*Heavy Metal* 124). Although Rush demonstrates its sympathies for romantic individualism (Bowman; Weinstein, *Heavy Metal* 124) the majority of fans suggested that Rush sides with the ruling priests (*Heavy Metal* 124), and Weinstein concluded from this informal test "that narrative was not these fans' strong point" (*Heavy Metal* 124). However, further exercises with the album in the classroom revealed that the confusion arose "from Rush's use of energetic heavy metal to

depict the totalitarian priests" and "gentle music to depict the individualist hero" (Bowman 200). As metal fans, these listeners find pleasure in the clearly metal sounds of the album, and project that appreciation onto the characters associated with those heavier sounds.[24] Thus, it is similarly difficult to predict from an academic analysis how audience members read the critique of bands like Voïvod and Fear Factory (if they do at all) without engaging in reception studies. Scholars' and listener's interpretations of musical meaning may differ, because of differences in how they "constitut[e] musical sound in perception" (Berger, "Death Metal" 163), or as Voïvod singer Eric Forrest frequently emphasized during our conversation, because what music means is "really up to the listener and how they perceive it" (Forrest).

How audience members interpret the dystopian critiques of bands like Voïvod and Fear Factory relies largely on listeners' familiarity with generic conventions, not just of metal but of science fiction and dystopia as well—such works imply the existence of a fan well-versed in metal, sf and dystopian traditions. Following in the path laid down by numerous metal artists before them, Voïvod and Fear Factory on these albums have taken up the conventions of science fiction and experimented with them in musical form; they have explored the tropes of technophobic and techno-ambivalent thought and combined them with the representational power of metal music to craft sf narratives in sound as well as verbal text. Are there fans out there who can appreciate this blending of genres and traditions?

---

[24] It is useful to note here that although the contrasts in Rush's *2112* resemble the contrasts identified in Voïvod and Fear Factory's music in terms of form, the actual sounds involved are quite different. Rush's "energetic" metal is much more melodic and virtuosic than the oppressive riffs of cyber metal, and the extended "gentle" sounds resemble a folk or light rock passage more than moments of 'technological transcendence'.

I would say the likelihood is strong. According to Will Straw, in the 1970s progressive rock fandom was "closely correlated with the frequent reading of, and subcultural involvement in, science fiction" (106), and although he argues that metal fans were polar opposites of prog/sf "nerd" culture (105), Bowman suggests that the audiences of hard rock, progressive rock and metal actually overlapped (188)—an assertion that Macan makes as well, at least in terms of American (not British) audiences (137). Jeffrey Jensen Arnett's study of adolescent metalheads provides further indication that 'nerd culture' and heavy metal culture overlap; for example, one of his interviewees expressed his appreciation of a dark futuristic role-playing game called *Apocalypse* (qtd. in Arnett 35), while others were into comic books (95) or dragons and sorcerers (138). The artists I interviewed certainly identified themselves as science fiction fans, as have others such as Ronnie James Dio (Christe 68), and I am also a fan of both metal and science fiction, as are several of my friends and acquaintances.

The fact that metal musicians have turned to dystopian and science fiction traditions to enrich their musical texts demonstrates that genre traditions are not (cannot be) understood as isolated within a single medium. This is not news, of course, as science fiction has long been present not just in literature but also in film, television, comics, animation and video games. However, popular music's engagements with science fiction pull sf away from the dominance of print and visual expressions into the aural realm, and academics have yet to extensively explore this kind of generic cross-fertilization. It is important to recognize the inter-media[ry] nature of popular entertainment for a better understanding of its role in society and how people make use of generic cultural productions in their ordinary lives. This thesis is a step in that direction, but only hints at

what studies are possible. Metal music, for example, has drawn deeply on the traditions of horror, fantasy, and mythology, and it would be productive, in future, to pursue further examinations of musical genres' appropriations of conventions and tropes from these other traditions as well. Popular texts belong not simply to one medium or genre, but are nodes in a much broader network of cultural expression.

Generic texts provide insight into the society they arise from—"genre movies are always about the time and place in which they are made" (Grant, *Genre Films* 10), but so are genre novels, and a similar claim could be made about genre music as well. Scholars like Larry McCaffrey and Robert Walser suggest that popular art that fails to address the conditions of contemporary society, such as late corporate capitalism or the rapid development of technology, is at best "unconvincing" (Walser 159), or even "irrelevant" (McCaffery 14). Walser argues that metal addresses contemporary social conditions (159), McCaffery proposes a similar argument about cyberpunk (8), and several academics, including Vivian Sobchack (8) and J. P. Telotte (19-25) have suggested that science fiction, in general, is well equipped to reflect the (post)modern high-tech world. Therefore, popular artistic works that combine the elements of metal music, cyberpunk, and other forms of science fiction, have the potential to capture contemporary anxieties and to extrapolate such concerns into possible future or alternative settings, offering both commentary and critique on the here and now. Recently Sean Redmond has warned that the academic community has in some "sense" "valorised" science fiction for its ability to "articulate contemporary fears" (x). It is important not to make that mistake with science fiction metal, but examinations of this musical phenomenon and others like it (horror metal, just to name one example) can productively further our understanding of the

relationship between different popular media, and the function and appeal of popular entertainment in our society.

Works Cited

Altman, Rick. *Film/Genre*. London: British Film Institute, 1999.

Arnett, Jeffrey Jensen. *Metal Heads: Heavy Metal Music and Adolescent Alienation.* Boulder, CO: Westview, 1996.

Avelar, Idelber. "Defeated Rallies, Mournful Anthems, and the Origins of Brazilian Heavy Metal." *Brazilian Popular Music and Globalization.* Ed. Charles A. Perrone and Christopher Dunn. New York: Routledge, 2002. 123-135.

Baccolini, Raffaella. "Gender and Genre in the Feminist Critical Dystopias of Katharine Burdekin, Margaret Atwood, and Octavia Butler." *Future Females, The Next Generation: New Voices and Velocities in Feminist Science Fiction Criticism.* Ed. Marleen S. Barr. Lanham, MD: Rowman & Littlefield, 2000. 13-34.

Baccolini, Raffaella and Tom Moylan. "Dystopia and Histories." Introduction. *Dark Horizons: Science Fiction and the Dystopian Imagination.* Ed. Raffaella Baccolini and Tom Moylan. New York and London: Routledge, 2003. 155-166.

Barclay, Michael, Ian A.D. Jack, and Jason Schneider. *Have Not Been the Same: the CanRock Renaissance 1985-1995.* Toronto: ECW Press, 2001.

Barkun, Michael. *Disaster and the Millennium.* New Haven and London: Yale University Press, 1974.

Bartlett, Laura and Thomas B. Byers. "Back to the Future: The Humanist Matrix." *Cultural Critique* 53 (2003): 28-46.

Baulch, Emma. "Gesturing Elsewhere: The Identity Politics of the Balinese Death/Thrash Scene." *Popular Music* 22.2 (2003): 195-215.

Beckwith, Karl. "'Black Metal is for White People'." *M/C: A Journal of Media and Culture* 5.3 (2002) 22 April 2005 <http://www.media-culture.org.au/0207/blackmetal.php>.

Begai, Carl. "Iron Saviour: Sci-Tech." *Brave Words & Bloody Knuckles* 21 (1997): 32.

Bell, Burton C. Personal interview. 14 November 2005.

Bennett, Andy. *Cultures of Popular Music*. Buckingham and Philadelphia: Open University Press, 2001.

Berelian, Essi. *The Rough Guide to Heavy Metal.* London: Rough Guides, 2005.

Berger, Harris M. "The Practice of Perception: Multi-Functionality and Time in the Musical Experiences of a Heavy Metal Drummer." *Ethnomusicology* 41.3 (1997): 464-488.

Berger, Harris M. "Death Metal Tonality and the Act of Listening." *Popular Music* 18.2 (1999): 161-178.

Berger, Harris M. *Metal, Rock, and Jazz: Perception and the Phenomenology of Musical Experience*. Hanover and London: University Press of New England, 1999.

Bogue, Ronald. *Deleuze's Wake: Tributes and Tributaries*. Albany, NY: State University of New York Press, 2004.

Bogue, Ronald. "Violence in Three Shades of Metal: Death, Doom and Black." *Deleuze and Music*. Ed. Ian Buchanan and Marcel Swiboda. Edinburgh: Edinburgh University Press, 2004. 95-117.

Bowman, Durrell S. "'Let Them All Make Their Own Music': Individualism, Rush, and the Progressive / Hard Rock Alloy, 1976-77." *Progressive Rock Reconsidered*. Ed. Kevin Holm-Hudson. New York and London: Routledge, 2002. 183-218.

Brackett, David. *The Pop, Rock, and Soul Reader: Histories and Debates*. New York and Oxford: Oxford University Press, 2005.

Braun, Ernst. *Wayward Technology*. Westport, CT: Greenwood, 1984.

Bromley, Adrian. "Fear Factory." *M.E.A.T.* June 1995: 9.

Bruni, Chris. "Fear Factory – *Obsolete*." *Unrestrained!* 5: Record Reviews section.

Bukatman, Scott. *Terminal Identity*. Durham: Duke U Press, 1993.

Buscombe, Edward. "The Idea of Genre in American Cinema." *Film Genre Reader III*. Ed. Barry Grant. Austin: University of Texas Press, 2003. 12-26.

Byers, Thomas B. "Commodity Futures." *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*. Ed. Annette Kuhn. London and New York: Verso, 1990. 39-50.

Ciavarella, Liz. "Fear Factory: Remixing the Machine." *Unrestrained!* 2:14.

Christe, Ian. *Sound of the Beast: The Complete Headbanging History of Heavy Metal*. New York: Harper Entertainment, 2003.

Collins, Karen. "'The Future is Happening Already': Industrial Music, Dystopia and the Aesthetic of the Machine." Diss. University of Liverpool, 2002.

Delville, Michel. "The Moorcok/Hawkwind Connection: Science Fiction and Rock'n'Roll Culture." *Foundation: The International Review of Science Fiction* 62 (Winter 1994/1995): 64-69.

Dery, Mark. "Cyberculture." *South Atlantic Quarterly* 91.3 (1992): 501-523.

Dery, Mark. *Escape Velocity: Cyberculture at the End of the Century.* New York: Grove, 1996.

Dictionary.com. "Negatron." 23 March 2006. <http://dictionary.reference.com/search?q=negatron&db=*>.

Dictionary.com. "Phobos." 23 March 2006. <http://dictionary.reference.com/search?q=phobos&db=*>.

Dome, Malcolm. "The Story Behind Voivod's *Dimension Hatross*." *Metal Hammer UK* June 2005: 89-91.

Epstein, Jonathon S. "Generation X, Youth Culture and Identity." Introduction. *Adolescents and Their Music: If It's Too Loud, You're Too Old.* Ed. Jonathon S. Epstein. Malden MA: Blackwell, 1998. 1-23.

Epstein, Jonathon S. and David J. Pratto. "Heavy Metal Rock Music: Juvenile Delinquency and Satanic Identification." *Popular Music and Society* 14.4 (1990): 67-76.

Featherstone, Mike and Roger Burrows. "Cultures of Technological Embodiment: An Introduction." *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment.* Ed. Featherstone and Burrows. London: Sage Publications, 1996. 1-12.

Fitting, Peter. "Unmasking the Real." *Dark Horizons: Science Fiction and the Dystopian Imagination.* Ed. Raffaella Baccolini and Tom Moylan. New York and London: Routledge, 2003. 155-166.

Fontana, Andrea and James H. Frey. " The Interview: From Structured Questions to Negotiated Text." *Handbook of Qualitative Research*, 2nd ed. Ed. Denzin and Lincoln. Thousand Oaks, CA: Sage Publications, 2000. 645-672.

Forrest, Eric. Personal interview. 8 December 2005.

Forster, E. M. "The Machine Stops." *Oxford and Cambridge Review*, 1909.

Fox, Nicols. *Against the Machine: The Hidden Luddite Tradition in Literature, Art, and Individual Lives.* Washington, Covelo and London: Island/Shearwater, 2002.

Franklin, H. Bruce. "Visions of the Future in Science Fiction Films from 1970 to 1982." *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema.* Ed. Annette Kuhn. London and New York: Verso, 1990. 19-31.

Friesen, Bruce K. and Jonathon S. Epstein. "Rock 'n' Roll Ain't Noise Pollution: Artistic Conventions and Tensions in the Major Subgenres of Heavy Metal Music." *Popular Music and Society* 18.3 (1994): 1-17.

Friesen, Bruce K. and Warren Helfrich. "Social Justice and Sexism for Adolescents: a Content Analysis of Lyrical Themes and Gender Presentations in Canadian Heavy Metal Music, 1998-1991." *Youth Culture: Identity in a Postmodern World.* Ed. Jonathon S Epstein. Malden, MA: Blackwell, 1998. 263-285.

Friesen, Bruce K. "Powerlessness in Adolescence: Exploiting Heavy Metal Listeners." *Marginal Conventions: Popular Culture, Mass Media, and Social Deviance* Ed. C. R. Saunders. Bowling Green, OH: Bowling Green U Press, 1990. 65-77.

Frith, Simon. *Performing Rites: On the Value of Popular Music.* Cambridge, MA: Harvard University Press, 1996.

Fulber, Rhys. Personal interview. 15 September 2005.

Garza. Janiss. "Voivod: Out There." *RIP* July 1993: 74-76, 94.

Grant, Barry. "Frank Zappa and 'La Guitare-Stylo': Auteur Criticism and Popular Culture." *The Sphinx* 11.3 (1980): 25-37.

Grant, Barry Keith. *Genre Films and Cultural Myth.* John R. Adams Lectures in Humanities. San Diego State University, 2001.

Grant, Barry Keith. "'Sensuous Elaboration: Reason and the Visible in Science Fiction Film." *Liquid Metal: The Science Fiction Film Reader.* London: Wallflower Press, 2004. 17-23.

Gross, Robert L. "Heavy Metal Music: A New subculture in American Society." *The Journal of Popular Culture* 24.1 (1990): 119-130.

Gunn, Joshua. "Gothic Music and the Inevitability of Genre." *Popular Music and Society* 23.1 (1999): 31-50.

Hakanen Ernest A. and Alan Wells. "Adolescent Music Marginals: Who Likes Metal, Jazz, Country, and Classical." *Popular Music and Society* 14.4 (1990): 57-66.

Hakanen, Ernest A. and Alan Wells. "Music Preference and Taste Cultures Among Adolescents." *Popular Music and Society* 17.1 (1993): 55-69.

Harrell, Jack. "The Poetics of Destruction: Death Metal Rock. *Popular Music and Society* 18.1 (1994): 91-103.

Harris, Keith. "'Roots'?: The relationship between the global and the local within the Extreme Metal scene." *Popular Music* 19.1 (2000): 13-30.

Hayward, Philip. Introduction. *Off the Planet: Music, Sounds and Science Fiction Cinema*. Ed. Philip Hayward. London: John Libbey /Indiana University Press, 2004. 1-29.

Henderson, Tim. "Voivod: Canadian Metal on the Rise." *M.E.A.T.* June 1993: 13.

Herbert, Frank. *Dune*. New York: Berkeley Books, 1984 (1965).

Hillegas, Mark R. *The Future as Nightmare: H. G. Wells and the Anti-utopians*. New York: Oxford University Press, 1967.

Hinds, Elizabeth Jane Wall. "The Devil Sings the Blues: Heavy Metal, Gothic Fiction, and the Postmodern Discourse." *Journal of Popular Culture* 26.3 (1992): 151-162.

Huxley, Aldous. *Brave New World*. London, Toronto, Sydney, New York: Granada, 1932.

Ingham, Chris. *The Book of Metal*. New York: Thunders Mouth Press, 2002.

Jameson, Fredric. "Postmodernism, or the Cultural Logic of Late Capitalism." *Media and Cultural Studies*. Ed. Meenakshi Gigi Durham and Douglas Kellner. Malden, MA: Blackwell, 2001. 550-587.

Kahn-Harris. "'I Hate This Fucking Country': Dealing with the Global and the Israeli Extreme Metal Scene." *Critical Studies* 19 (2002): 133-151.

Kahn-Harris. "Unspectacular Subculture: Transgression and Mundanity in the Global Extreme Metal Scene." *After Subculture: Critical Studies in Contemporary Youth Culture*. Ed. Andy Bennett and Keith Kahn-Harris. New York: Palgrave Macmillan, 2004. 107-118.

Kidder, Tracy. *The Soul of a New Machine*. New York: Avon, 1981.

Konow, David. *Bang Your Head: The Rise and Fall of Heavy Metal*. New York: Three Rivers Press, 2002.

Kotarba, Joseph A. "The Postmodernization of Rock and Roll Music: The Case of Metallica." *Adolescents and their Music: If It's Too Loud, You're Too Old*. Ed. Jonathon S. Epstein, New York: Garland, 1994. 141-164.

Landon, Brooks. *The Aesthetics of Ambivalence: Rethinking Science Fiction Film in the*

Age of Electronic (Re)Production. Westport, CT and London: Greenwood Press, 1992.

Langevin, Michel. Personal interview. 17 November 2005.

Locher, David A. "The Industrial Identity Crisis: The Failure of a Newly Forming Subculture to Identify Itself. *Youth Culture: Identity in a Postmodern World.* Ed. Jonathon Epstein Malden, MA and Oxford: Blackwell, 1998. 100-117.

Lyotard, Jean-François. "Defining the Postmodern." *The Cultural Studies Reader*, 2nd ed. Ed. Simon During. London: Routledge, 1999. 142-145.

Macan, Edward. *English Progressive Rock and the Counterculture.* New York/Oxford: Oxford U Press, 1997.

Marsh, Dave and Kevin Stein. *The Book of Rock Lists.* Dell/Rolling Stone, 1984.

Martin, Bill. *Listening to the Future: The Time of Progressive Rock, 1968-1978.* Chicago: Open Court, 1998.

Masters, Drew. "Fear Factory: *Demanufacture.*" *M.E.A.T.* September/October 1995: 34.

McCaffery, Larry, ed. *Storming the Reality Studio: a Casebook of Cyberpunk and Postmodern Science Fiction.* Durham: Duke U Press, 1991.

McCarron, Kevin. "Corpses, Animals, Machines and Mannequin: The Body and Cyberpunk." *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment.* Ed. Mike Featherstone and Roger Burrows. London: Sage Publication, 1996. 261-274.

McLeod, Ken. "Space Oddities: Aliens, Futurism and Meaning in Popular Music." *Popular Music* 22.3 (2003): 337-355.

M.E.A.T. Fear Factory *Demanufacture* advertisement. *M.E.A.T.* June 1995: 5.

Metal Hammer UK. "Fear Factory: Future Shocks." *Metal Hammer UK* August 2001: 30-34.

Milner, Andrew. "Darker Cities: Urban Dystopia and Science Fiction Cinema." *International Journal of Cultural Studies* 7.3 (2004): 259-279. Sage Publications 3 March 2005.

Moylan, Tom. *Scraps of the Untainted Sky: Science Fiction, Utopia, Dystopia.* Boulder, CO and Oxford: Westview Press, 2000.

Novotny, Patrick. "No future! Cyberpunk, Industrial Music, and the Aesthetics of Postmodern Disintegration." *Political Science Fiction.* Ed. Donald Hassler and Clyde Wilcox. Columbia, SC: University of South Carolina Press, 1997. 101-123.

Orwell, George. *Nineteen Eighty-Four.* New York: Penguin, 1981 (1949).

Penley, Constance. "Time Travel, Primal Scene, and the Critical Dystopia." *Liquid Metal: The Science Fiction Film Reader*, ed. Sean Redmond. London: Wallflower Press, 2004. 126-135.

Phillips, Dennis. "Meddling in Metal Music." *Research in American Popular Music.* Ed. Kenneth J. Bindas. Carrollton, GA: West Georgia College, 1992. 77-94.

Popoff, Martin. *The Collector's Guide to Heavy Metal, Volume 1: The Seventies.* Toronto: Collector's Guide Publishing, 2003.

Popoff, Martin. *The Collector's Guide to Heavy Metal, Volume 2: The Eighties.* Toronto: Collector's Guide Publishing, 2005.

Popoff, Martin. *The Top 500 Heavy Metal Albums of All Time.* Toronto: ECW, 2004.

Purcell, Natalie J. *Death Metal Music: The Passion and Politics of a Subculture.* Jefferson, NC: McFarland & Co., 2003.

Redmond, Sean, ed. Preface. *Liquid Metal: The Science Fiction Film Reader.* London: Wallflower Press, 2004. ix-xi.

Ristic, Alex. "Voivod: Cyber Metal Attack!" *Unrestrained!* 3:6.

Ryan, Michael & Kellner, Douglas. *Camera Politica: The Politics and Ideology of Contemporary Hollywood Film.* Bloomington and Indianapolis: Indiana University Press, 1988.

Ryan, Michael and Douglas Kellner. "Technophobia/Dystopia." *Liquid Metal: The Science Fiction Film Reader.* Ed. Sean Redmond. London: Wallflower Press, 2004. 48-56.

Sargent, Lyman Tower. "The Three Faces of Utopianism Revisited. *Utopian Studies* 5.1 (1994): 1-37.

Simon, Bart. "Introduction: Toward a Critique of Posthuman Futures." *Cultural Critique* 53 (2003): 1-9.

Sloat, Lisa J. "Incubus: Male Songwriter's Portrayal of Women's Sexuality in Pop Metal Music. *Youth Culture: Identity in a Postmodern World.* Ed. Jonathon Epstein. Malden, MA and Oxford: Blackwell, 1998. 286-301.

Small, Aaron. "Fear Factory: Recycle This!" *Brave Words & Bloody Knuckles* February/March 1997: 3.

Sobchack, Vivian. *Screening Space: The American Science Fiction Film*, 2nd ed. New York: Ungar, 1987.

Sontag, Susan. "The Imagination of Disaster." *Against Interpretation and Other Essays.* New York: Farrar, Straus & Giroux, 1966 (1964). 209-225.

Sterling, Bruce. "Unstable Networks." *Digital Delirium.* Ed. A. and M. Kroker. New York: St. Martin's Press, 1997. 25-37.

Stillman, Peter G. "Dystopian Visions and Utopian Anticipations: Terry Bisson's *Pirates of the Universe* as Critical Dystopia." *Science Fiction Studies* 28 (2001): 365-382.

Stillman, Peter G. Dystopian Critiques, Utopian Possibilities, and Human Purposes in Octavia Butler's *Parables*. *Utopian Studies* 14.1 (2003): 15-35.

Straw, Will. "Characterizing Rock Music Culture: The Case of Heavy Metal." *The Cultural Studies Reader*, 2nd Ed. Simon During. London: Routledge: 1999 (1983).

Suvin, Darko. *Metamorphoses of Science Fiction.* New Haven and London: Yale University Press, 1979.

Szatmary, David P. *Rockin' In Time: A Social History of Rock-and-Roll.* Upper Saddle River, NJ: Prentice-Hall, 2000.

Telotte, J. P. *Science Fiction Film.* Cambridge: Cambridge U Press, 2001.

Verden, Paul, Kathleen Dunleavy and Charles H. Powers. "Heavy Metal Mania and Adolescent Delinquency." *Popular Music and Society* 13.1 (1989): 73-82.

Vestel, Viggo. "Breakdance, Red Eyed Penguins, Vikings, Grunge and Straight Rock'n'Roll: The Construction of Place in Musical Discourse in Rudenga, East Side Oslo." *Young* 7.2 (1999): 4-24.

Waksman, Steve. *Instruments of Desire: The Electric Guitar and the Shaping of Musical Experience*. Cambridge, MA and London: Harvard U Press, 1999.

Walser, Robert. *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music*. Hanover, NE: Wesleyan, 1993.

Weinstein, Deena. *Serious Rock: Bruce Springsteen / Rush / Pink Floyd.* Montreal: CultureTexts, 1985.

Weinstein, Deena. *Heavy Metal: The Music and Its Culture*. Da Capo, 2000.

Weinstein, Deena. "Progressive Rock as Text: The Lyrics of Roger Waters." *Progressive Rock Reconsidered*. Ed. Kevin Holm-Hudson. New York and London: Routledge, 2002. 91-110.

Weiss, Allan. "The Canadian Apocalypse." *Worlds of Wonder: Readings in Canadian Science Fiction and Fantasy Literature*. Ed. Jean-François Leroux and Camille R. La Bossière. Ottawa: University of Ottawa Press, 2004. 35-45.

Wells, H. G. "The First Men in the Moon." *The Collector's Book of Science Fiction by H. G. Wells*. Edison, NJ: Castle Books, 1978. 141-248.

Winner, Langdon. *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought*. Cambridge, MA and London: MIT Press, 1977.

Wood, Robin. (1986). *Hollywood from Vietnam to Reagan*. New York: Columbia University Press.

World Book. "Negatron." *World Book Multimedia Encyclopedia*, 2002.

World Book. "Phobos." *World Book Multimedia Encyclopedia*, 2002.

Zamyatin, Yevgeny. *We*. New York: Avon Books. 1983. (1924; English translation 1972).

Zuberi, Nabeel. "The Transmolecularization of [Black] Folk: *Space is the Place*, Sun Ra and Afrofuturism. *Off the Planet: Music, Sounds and Science Fiction Cinema*. Ed. Philip Hayward. London: John Libbey /Indiana University Press, 2004. 77-95.

Websites and Webzines

All Music Guide. "Charts & Awards." Fear Factory. *All Music Guide*. 22 December 2005 <http://www.allmusic.com>.

---. "Charts & Awards." Voivod. *All Music Guide*. 22 December 2005 <http://www.allmusic.com>.

Ansier, Joel. *Phobos* review. Dynamite! Metal News. 3 March 2006 <http://dynamitemetal.com/reviews/voivod.htm>.

Baden, Chaz Boston. Music, Radio, Misc. Audio. *Science Fiction Resource Guide*. 12 August 2005 <http://www.sflovers.org/SFRG/sfrgs.htm>.

Birchmeier, Jason. *Demanufacture* review. 17 March 2006 <http://www.allmusic.com>.

Book, John and Greg Prato. Voivod bio, 2004. 8 August 2005 <http://voivod.net/info/bios/04_bio.php>.

Bromley, Adrian. *Obsolete* review. *Chronicles of Chaos*. 17 March 2006. <http://www.chroniclesofchaos.com/reviews/albums/2-44_voivod_negatron.aspx >.

Brave Words. "Deicide Frontman Glen Benton, Mayhem's Necrobutcher Featured In BBC Documentary Death Metal Murders." Bravewords.com, 15 November 2005. 17 November 2005 <http://www.bravewords.com/news/35454>.

Carson, Nathan. Voivod bio, 2003. 8 August 2005 <http://www.voivod.net/info/index.php>.

Connor, Monte. Voivod Interview. *Metal Mania*, 1987. 18 July 2006 <http://www.voivod.net/info/index.php>.

Corridor of Cells. Voivod Interview. CorridorofCells.com, 1997. 29 June 2006 <http://voivod.net/info/interviews/1997_CorridorofCells.php>.

Dome, Malcolm. Voivod bio, 1995. 8 August 2005 <http://voivod.net/info/bios/95_bio.php>.

Fasolino, Greg. Voivod 1989 bio. 8 August 2005 <http://voivod.net/info/bios/89_bio.php>.

Galipault, Gerry. "Damn the Machine is on a 'Mission'." 1993. 7 January 2006 <http://www.pauseandplay.com/damnthemachine.htm>.

Garza, Janiss. "Space Oddities." *RIP* May 1996. 29 June 2006. <http://voivod.nnet/info/interviews/1996_HellFrost_interview.php>.

Gaudrault, Alain. Phobos review. 6 March 2006. *Chronicles of Chaos*. <http://www.chroniclesofchaos.com/reviews/albums/2-576_voivod_phobos.aspx>.

Hellfrost. Voivod Interview. Hellfrost.com, 1996. 29 June 2006 <http://voivod.nnet/info/interviews/1996_HellFrost_interview.php>.

Huey, Steve. Fear Factory biography. *All Music Guide*, 2005. 7 January 2006 <http://www.allmusic.com>.

---. Gwar biography. *All Music Guide*. 8 August 2005 <http://www.vh1.com/artists/az/gwar/bio.jhtml>.

Jossa, Yuri. Voivod bio, 1996. 8 August 2005 <http://voivod.net/info/bios/96_bio.php>.

Kime, Phil. *Negatron* review. 6 March 2006. <http://www.kime.org.uk/PK/music/musicdb.cgi?section=ARTIST&query=Voivod>

Kulawiec, Rich. *SF-references-in-music List*, 2000. 12 August 2005 <http://www.faqs.org/faqs/music/sci-fi-refs/>.

McDonald, Glenn. *Negatron* review. The War Against Silence, 15 February 1996. 6 March 2006 <http://www.furia.com/page.cgi?type=twas&id=twas0055>.

---. *Demanufacture* review. The War Against Silence, 5 September 1996. 17 March 2006 <http://www.furia.com/page.cgi?type=twas&id=twas0084&terms=fear+factory>.

Prato, Greg. *Negatron* review. *All Music Guide*. 6 March 2006 <http://www.voivod.net/discography/95/index.php>.

---. *Phobos* review. *All Music Guide*. 6 March 2006 <http://www.voivod.net/discography/97/index.php>.

---. *Obsolete* review. *All Music Guide*. 17 March 2006 <http://www.allmusic.com>.

Ramos, Octavio Jr. *Space Music: A Top 10 Listing of Heavy Metal Concept Albums with SF Themes* <http://www.zone-sf.com/spacemusic.html> (12 August 2005).

Roadrunner. Fear Factory bio. Roadrunner Records. 7 January 2006 <http://www.roadrunnerrecords.nl/artists/FearFactory/bio.asp>.

Scaruffi, Piero. Fear Factory, 1999. 8 August 2005 <http://www.scaruffi.com/vol5/fearfact.html>.

---. (1999). The History of Rock Music: Voivod. <http://www.scaruffi.com/vol4/voivod.html> (8 August 2005).

Smith, Eric. J. *Negatron* review. 6 March 2006. <http://www.rocknet.com/apr96/voivod.html>.

Stillie. Denise. *Negatron* review. *Metal Hammer*, November 1995. 6 March 2006 <http://www.voivod.net/discography/95/index.php>.

Tyler, Keith. Plot Summary for *Skulhedface*, 1994. 8 August 2005 <http://www.imdb.com/title/tt0138813/plotsummary>.

Voivod.com. News. 31 May 2005. 8 June 2005 <http://www.voivod.com/home.html>.

Wikipedia. Fear Factory. Wikipedia.com. 7 January 2006 <http://en.wikipedia.org/wiki/Fear_Factory>.

Discography

Anthrax. *Spreading the Disease*. Island, 1985.

Arcturus. *Sideshow Symphonies*. Season of Mist, 2005.

Ayreon. *The Final Experiment*. Transmission, 1995.

---. *Actual Fantasy*. InsideOut, 1996.

Black Sabbath. *Paranoid*. Vertigo, 1970.

---. *Master of Reality*. Vertigo, 1971.

Cattle Decapitation. *Humanure*. Metal Blade, 2004.

Damn the Machine. *Damn the Machine*. A& M, 1993.

Deep Purple. *Machine Head*. Purple, 1972.

Edge of Sanity. *Purgatory Afterglow*. Black Mark, 1996

Ewigkeit. *Starscape*. Eldethron/Neat, 1999.

---. *Conspiritus*. Earache, 2005.

Fear Factory. *Soul of a New Machine*. Roadrunner, 1992.

---. *Fear is the Mindkiller*. Roadrunner, 1993.

---. *Demanufacture*. Roadrunner, 1995. <http://www.fearfactory.com/media.htm>

---. *Remanufacture (Cloning Technology)*. Roadrunner, 1997.

---. *Obsolete*. Roadrunner, 1998. <http://www.fearfactory.com/media.htm>

---. *Digimortal*. Roadrunner, 2001.

---. *Archetype*. Liquid 8, 2004.

Icycore. *Wetwired*. Limb, 2004.

Ink Spots. "I Don't Want to Set the World on Fire." 78 RPM record. Decca, 1941.

Iron Savior. *Iron Saviour*. Noise, 1997.

Judas Priest. *Screaming for Vengeance*. Columbia, 1982.

---. *Defenders of the Faith*. Columbia, 1984.

---. *Painkiller*. Columbia, 1990.

Kataklysm. *In the Arms of Devastation*. Nuclear Blast, 2006.

Megadeth. *So Far… So Good… So What!* Capitol, 1988.

---. *Rust in Peace*. Capitol, 1990.

---. *Countdown to Extinction*. Capitol, 1992.

Meshuggah. *Contradictions Collapse*. Nuclear Blast, 1991.

---. *Destroy Erase Improve*. Nuclear Blast, 1995.

Ministry. *Psalm 69: The Way to Succeed and the Way to Suck Eggs*. Warner, 1992.

---. *Houses of the Molé*. Sanctuary, 2004.

---. *Rio Grande Blood*. Megaforce, 2006.

Misery Index. *Discordia*. Relapse, 2006.

Napalm Death. *The Code is Red… Long Live the Code*. Century Media, 2005.

No Return. *Machinery*. Nuclear Blast, 2002.

Nuclear Assault. *Game Over*. Combat, 1986.

---. *Survive*. I.R.S., 1988.

Queensrÿche. *The Warning*. EMI, 1984.

---. *Operation: Mindcrime*. EMI, 1988.

---. *Operation: Mindcrime II*. Rhino, 2006.

Rush. *2112*. Anthem, 1976.

Scorngrain. *Cyberwarmachine*. Dynamic Arts, 2004.

Space Odyssey. *Embrace the Galaxy*. Regain, 2003.

---. *The Astral Episode*. Candlelight, 2005.

Star One. *Space Metal*. InsideOut, 2002.

Steel Prophet. *Dark Hallucinations*. Nuclear Blast, 1999.

---. *Genesis*. Nuclear Blast, 2000.

Testament. *Practice What You Preach*. Megaforce/Atlantic, 1989.

Voïvod. *War & Pain*. Metal Blade, 1984.

---. *Rrröööaaarrr*. Noise, 1986.

---. *Killing Technology*. Noise, 1987.

---. *Dimension Hatröss*. Noise, 1988.

---. *Angel Rat*. Mechanic, 1991.

---. *The Outer Limits*. MCA, 1993.

---. *Negatron*. Hypnotic, 1995. <http://www.mp3.com/albums/181045/summary.html>

---. *Phobos*. Hypnotic, 1997. <http://www.mp3.com/albums/289072/summary.html>

---. *Krønik*. Hypnotic, 1998.

---. *Katorz*. The End, 2006.

White Zombie. *Astrocreep 2000: Songs of Love, Destruction, and other Synthetic Delusions of the Electric Head*. Geffen, 1995.

Filmography and Videography

Blade Runner. Dir. Ridley Scott. Warner Brothers, 1982.

Fear Factory. "Replica." *Demanufacture*. DVD. Roadrunner, 1995. <http://www.youtube.com/watch?v=QbMiTc7Eu98>

---. "Resurrection." *Obsolete*. DVD. Roadrunner, 1998. <http://www.youtube.com/watch?v=r5X8p9W4VkM>

---. *Digital Connectivity*. DVD. Universal, 2001.

Kiss Meets the Phantom of the Park. Dir. Gordon Hessler. NBC, 1978.

Robocop. Dir. Paul Verhoeven. Orion, 1987.

Skulhedface. Dir. Melanie Mandl. Metal Blade, 1994.

The Terminator. Dir. James Cameron. Orion, 1984.

Voïvod. "Insect." *Negatron*. Music video. Hypnotic, 1995. <http://www.youtube.com/watch?v=cX1y1cX4zVI>

---. "The Tower." *Phobos*. Music video. Hypnotic, 1997. <http://www.youtube.com/watch?v=OZZ93hhRQ9o>

Appendix A: Album Artwork

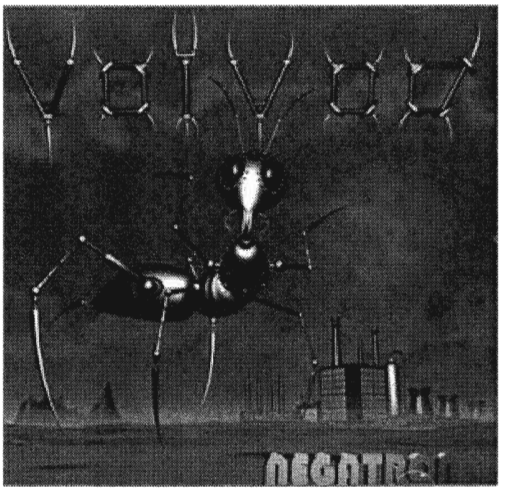

Fig. 1. *Negatron* album cover, Voïvod.

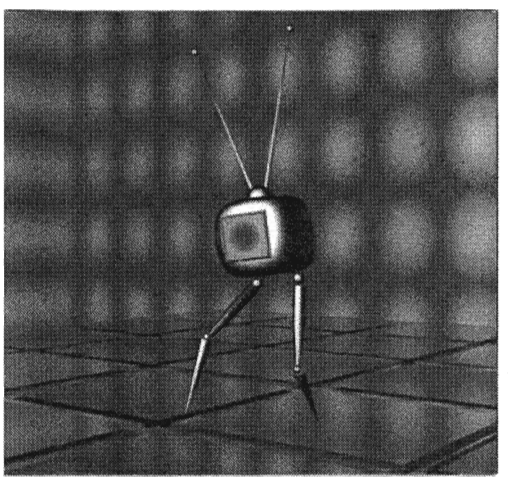
Fig. 2. *Negatron* inner sleeve.

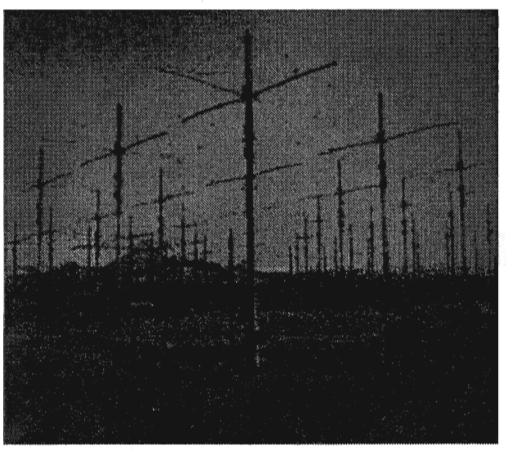
Fig. 3. *Negatron* inner sleeve.

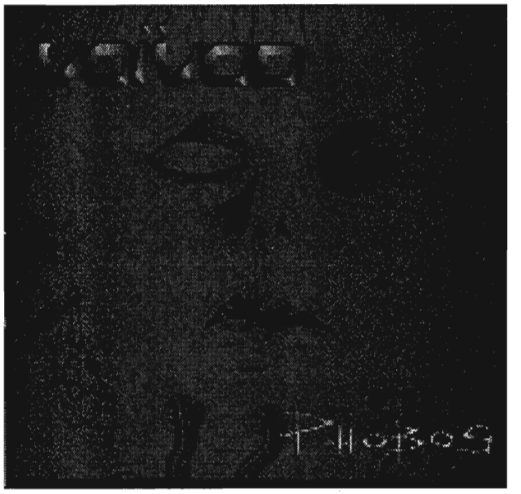

Fig. 4. *Phobos* album cover.

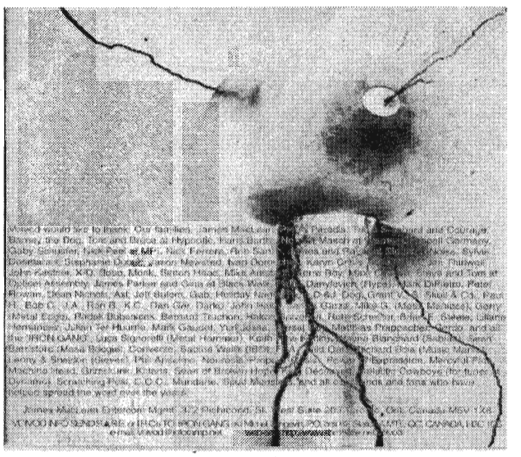
Fig. 5. *Phobos* inner sleeve.

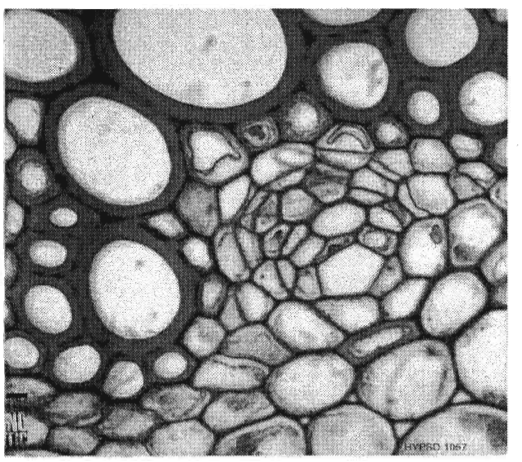
Fig. 6. *Phobos* inner sleeve.

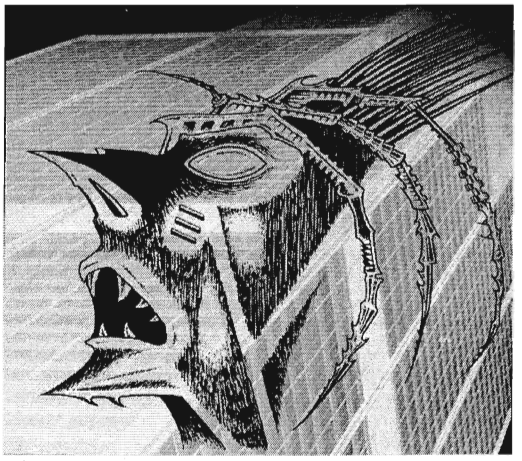

Fig. 7. *Phobos* inner sleeve.

Fig. 8 *Demanufacture* inner sleeve.

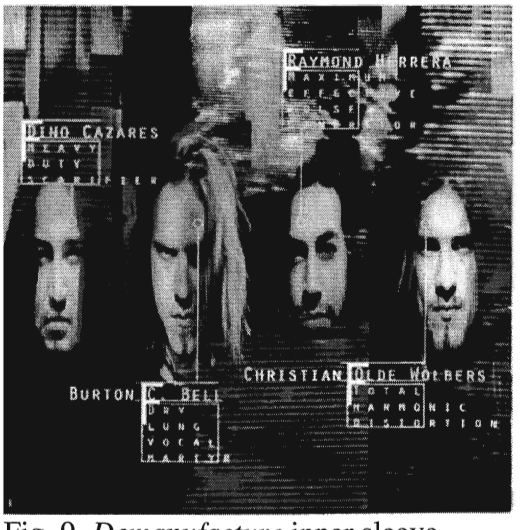

Fig. 9. *Demanufacture* inner sleeve.

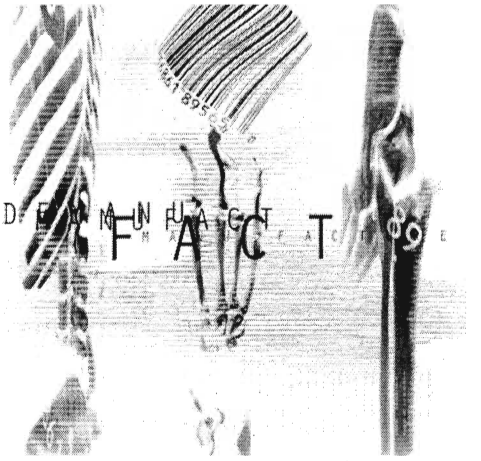

Fig. 10. *Demanufacture* inner sleeve.

Fig. 11. *Demanufacture* album cover.

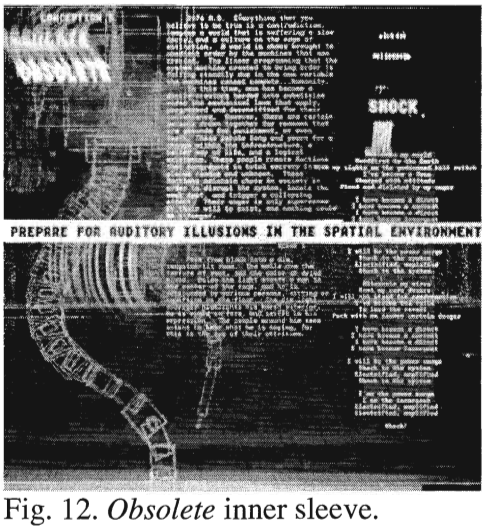

Fig. 12. *Obsolete* inner sleeve.

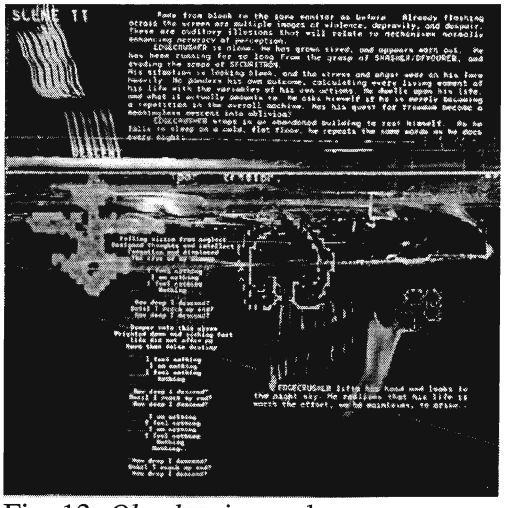

Fig. 13. *Obsolete* inner sleeve.

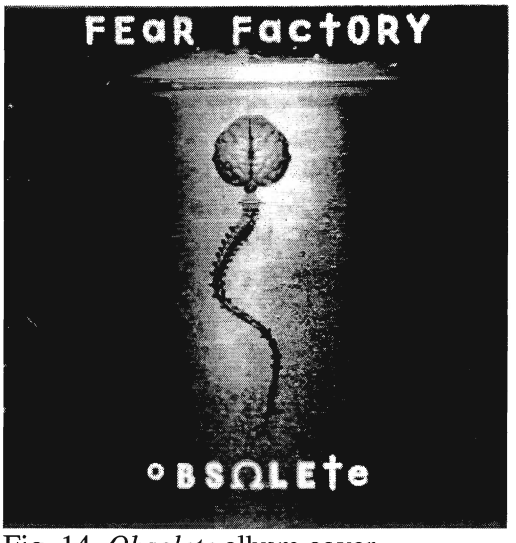

Fig. 14. *Obsolete* album cover.

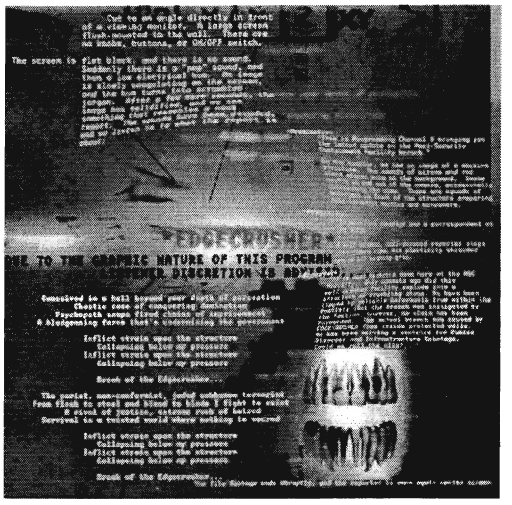

Fig. 15. *Obsolete* inner sleeve.

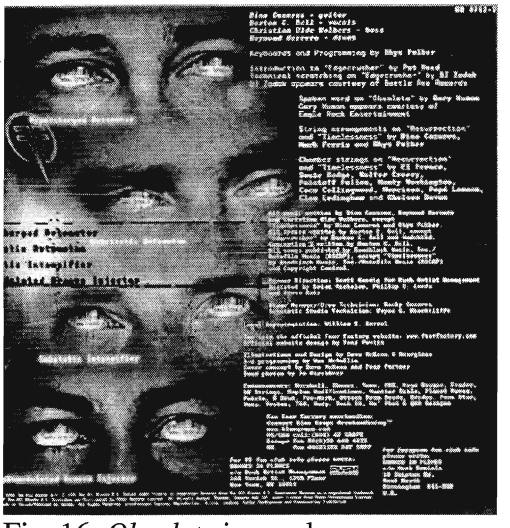

Fig. 16. *Obsolete* inner sleeve.

Appendix B: Interview Methodology and Process

To support my assertion that the critical commentary imbedded in *Negatron*, *Phobos*, *Demanufacture* and *Obsolete* is not accidental, and that it is part of Voivod's and Fear Factory's broader musical and conceptual engagement with science fiction, I conducted in-depth open-ended interviews with some of the band members involved in the creation and production of these albums. This project was approved by Brock's Research Ethics Board as file # 04-426.

The selection of interview subjects was based on several factors—keeping the interviews to a manageable number for the scope of this project, the band members' involvement in the writing of music, lyrics and concepts for the albums, and their willingness/availability to be interviewed.

From Voïvod I interviewed Michel Langevin and Eric Forrest. Langevin is one of the founding members of Voïvod and is responsible for the band's artwork and most of its science fiction concepts (Barclay, et al. 158-161). On *Negatron* he is credited with "drums & percussion" and "artwork" and as co-author of all the "words"; the liner notes attribute the music to the entire band (*Negatron*). Langevin performed a similar role on *Phobos*, playing drums, creating the artwork, and co-writing music lyrics (*Phobos*). Forrest was Voïvod's bassist, vocalist and co-writer of music and lyrics for both *Negatron* and *Phobos*, although he suggested during our interview that these albums were the "creation" of Langevin and guitarist Denis D'Amour, and that he contributed what he could (Forrest). I was unfortunately not able to speak with D'Amour, other founding member, because D'Amour was extremely ill from cancer when I began the interview process and he died in August of 2005. No one outside the band maintained a consistent and extensive creative relationship with Voïvod during this time. Langevin is still a member of Voïvod, while Forrest now leads his own band called E-Force.

From Fear Factory I interviewed Burton C. Bell and Rhys Fulber. Bell is Fear Factory's vocalist and lyricist. He contributed to all the arrangements on Demanufacture, co-wrote the music of some Fear Factory songs, and is credited with Conception 5, the between-song narrative printed in the booklet for *Obsolete* (*Demanufacture*; *Obsolete*). Dino Cazares has states, "The concepts are mostly Burton's. [...] But the whole band contributes ideas" (Metal Hammer UK 32). Bell also wrote the band biography printed in the liner notes of *Digital Connectivity*. Fulber was a member of the industrial band Front Line Assembly when he began working with Fear Factory. He performed most of the keyboard parts on Demanufacture and was involved in the mixing of the album (*Demanufacture*). He co-mixed and co-produced Obsolete, handled the keyboards and programming, contributed to the arrangements, and co-wrote "Timelessness" (*Obsolete*). According to Bell, Fulber "was definitely an integral part of the [Fear Factory] sound" and he "created the soundscapes for Fear Factory" (Bell). Cazares has described him as "almost like a fifth member of Fear Factory" (qtd. in Small). I had difficulty making contact with Cazares who is credited as the primary writer of all Fear Factory's music. Although he eventually expressed his willingness to participate in the project, we were unable to maintain the lines of communication and arrange an interview. Cazares is now a member of a band called Asesino, but Bell is still an active member Fear Factory. Fulber continues to produce metal and non-metal albums (although not Fear Factory's) and has a project of his own called Conjure One.

While my decision to interview a small sample of artists was dictated in part by the scope of my thesis, it also arises from my desire for "a greater breadth of data," and I chose the semi-structured, qualitative style of interview to accommodate the exploratory nature of my questions (Fontana and Frey 652-653). I was inspired by Walser's strategy of "cultural triangulation," using ethnography, including musician interviews, as a check for his textual analysis (xiii), and I was also conscious of Berger's assertion that studying "the text alone" is a form of "textual empiricism," which severs the text from "its constitution in experience and its social production" (*Metal* 3). However, the purpose of my thesis is to demonstrate what the text may offer in terms of critical commentary on its sociopolitical and cultural environment; therefore, some of their research methodologies were not relevant to this study (Walser, for example, attended concerts and conducted fan interviews as well).

I initially approached the musicians through online communication, using contact information available on their web sites or emailing the record labels releasing their current material (Voïvod is currently working with The End Records; Forrest's current band E-Force was signed to Season of Mist at the time; Fear Factory's Canadian representation is with Listen Harder; and Nettwerk Records represents Rhys Fulber's current project, Conjure One. In the case of Voïvod, label representatives put me in direct email contact with Langevin and Forrest, while in the case of Fear Factory, I made all interview arrangements through the individual label representatives.

I conducted the interviews by telephone. I had a prepared rough guide of questions and subjects I wished to discuss but talked with each musician for over an hour and tried to follow additional threads where they arose or dropped questions that were answered indirectly or lost relevance during the course of conversation (see Appendix B for interview guides). However, the interviews maintained their focus on the artists' musical work.

I include the artists' perspectives on their own material not to seek out a definitive answer of what these records mean (an author's reading is merely one of several possible), but to see what influences and impulses were consciously involved in the making of the material and to contrast their interpretations with my own. In general, I found that the artists' explanations largely corresponded with my critical readings of the texts, and I have included excerpts from or references to these interviews in chapters three and four. I have supplemented my own interviews with references to a variety of published interviews as well, many of them conducted shortly after the release of the albums they discuss.

Appendix C: Interview Guides

The following are the guides with which I approached the interviews I conducted; the general guide I submitted to Brock's Research Ethics Board, file # 04-426, is included with the copy of my ethics board application (Appendix C). There represent the more individualized guides developed through the course of my research. Rather than a firm script of my questions each represents a rough outline of the issues I wished to discuss. The actual conversations varied somewhat in response to the artists' recollections and responses.

Interview Guide – Burton C. Bell:

When did you first become interested in incorporating science fiction themes into your music?

Why create an album-long science fiction narrative rather than individual songs with science fiction themes on *Obsolete*?
How did *Obsolete* differ from your previous engagements with science fiction?
Can you explain the story?

Are you a fan of science fiction literature?
Of science fiction film?
What do you find interesting about the science fiction genre?
Are there particular books or movies that have inspired or influenced you to come up with your own science fiction narratives?

Do you see your music as a soundtrack to the story?

How closely do your videos relate to the ideas you are trying to get across in the songs? How heavily have you been involved in the production of your videos? If involved, how do you come up with video concepts?

How closely does your album artwork relate to the ideas you are trying to get across in the songs? How heavily have you been involved in the production of the album art? If involved, how do you come up with concepts for the artwork?

What was going on in the world at the time that may have influenced or inspired your science fiction lyrics? Do you consider your dystopian lyrics to be a warning? A prediction? A call to arms? Simply science fiction (fantasy)? [Were you looking at problems in society at the time that seemed likely to create a future dystopia for ourselves?]

I'm particularly interested in your representations of technology and humanity. Do you consider your songs to be portraying technology as a threat?
What kind of statement were you making about the nature of humanity?

Fear Factory was one of the first metal bands to really embrace industrial influences and synthesizer technology – do you see a relationship between that musical approach and your focus on technological and science fiction themes?

Despite how much programming and keyboard work is on *Obsolete* the album sounds less "industrial"; the liner notes of the *Digital Connectivity* DVD suggest it was an attempt to infuse the band's sound with a "more human perspective" – can you explain that in more detail?

What relationship is there (if any) between your release of industrial or techno remixes of some of your science fiction or technology-themed songs and their subject matter?

Your music is still grounded in metal, and based on the standard line-up of guitars, bass and drums. Nevertheless, you very much depend on technology to produce your music – from the basic amplification of your instruments to the recording process and the production of the physical product to the digital artwork, the electronic effects, and so on. How do you feel about your own personal relationships to science and technology (particularly as musicians)?

How do the ideas expressed on your science fiction-themed albums of the late 1990s translate to 2005? Do those concerns still hold weight now?

What was Rhys Fulber's role in the band and the creation of your albums?

Interview Guide – Eric Forrest:

You joined Voïvod between the release of *The Outer Limits* and *Negatron* – what was your role in the creation of *Negatron* and *Phobos*?

What do you think made Voïvod take a more aggressive approach on these albums?

Are you a fan of science fiction literature?
Of science fiction film?
What do you find interesting about the science fiction genre?
Are there particular books or movies that have inspired or influenced you to come up with your own science fiction narratives?

What made you decide you wanted to mix science fiction and music?

Can you talk about some of the themes you were dealing with on *Negatron*?
Were they influenced by what was going on in the world at the time?

One of the themes I'm particularly interested in is the representation of technology. What was your perspective on technology on *Negatron*?

How would you explain the album's position regarding the future of humanity?

The use of industrial elements in songs dealing with issues related to science and technology creates a stronger relationship between sound and subject matter than is often the case in metal. How much of that relationship is the result of conscious decision, perhaps even to draw more attention to the content of the lyrics?

With *Phobos* you embarked on another science fiction concept album and brought back the Voïvod character, is that correct? Can you explain the nature of that character?

Can you briefly explain the story of *Phobos*?

How do *Phobos*'s views on technology compare to *Negatron*'s?

What does *Phobos* have to say about technology and the future of humanity?

Both albums feature a lot of dark, oppressive sounds, but they seem to express hope as well. Would you agree with that? (Why or why not?)

How closely do your videos relate to the ideas you are trying to get across in the songs?

What relationship is there (if any) between your release of industrial or techno remixes of some of your science fiction or technology-themed songs and their subject matter?

What was going on in the world at the time that may have influenced or inspired your science fiction lyrics? Do you consider your dystopian lyrics to be a warning? A prediction? A call to arms? Simply science fiction (fantasy)? [Were you looking at problems in society at the time that seemed likely to create a future dystopia for ourselves?]

Your music is still grounded in metal, and based on the standard line-up of guitars, bass and drums. Nevertheless, you very much depend on technology to produce your music – from the basic amplification of your instruments to the recording process and the production of the physical product to the digital artwork, the electronic effects, and so on. How do you feel about your own personal relationships to science and technology (particularly as musicians)?

How do the ideas expressed on your science fiction-themed albums of the late 1990s translate to 2005? Do those concerns still hold weight now?

Interview Guide – Rhys Fulber:

When and how did you start working with Fear Factory?

What were your roles in relation to the band over the years?
Did Fear Factory ever express to you why they wanted to incorporate more programming and keyboard lines into their music?

The liner notes to *Demanufacture* credit Fear Factory for the keyboard concepts and keyboard performance. How did the band convey to you what those concepts were, how they wanted the keyboard parts to sound?

On *Demanufacture* the lyrics seem to tie technology to negative things – government control, violence…which is echoed in some of the synth parts – like sounds of clanking machinery – and also in the mechanical precision of the rhythm section, but some of the slower, more melodic keyboard parts have a transcendent quality and seem to represent the promise of technology rather than its threat. What's your take on the human-technology relationship as it's portrayed on that album?

You were more heavily involved in *Obsolete*?
Any sense of why the band chose to do a science fiction concept album at that time?

Despite how much programming and keyboard work is on *Obsolete* the album sounds less "industrial"; the liner notes of the *Digital Connectivity* DVD suggest it was an attempt to infuse the band's sound with a "more human perspective"…How do you interpret the shift?

How did you come up with the concepts or ideas for keyboard parts on *Obsolete*?

You co-wrote the last song, "Timelessness"? How would you explain or describe it?

What would you say is the overall stance on technology on *Obsolete*?
And its predictions for the future? (is there hope?)

Industrial music has a more overt relationship with technology than the more rock-oriented sounds of heavy metal. Do you think that Fear Factory began incorporating industrial elements as part of a conscious decision to sound more technological or science fiction rather than just addressing those themes in some of their lyrics?
Do you think they would have been able to address human/technology relationships and science fiction themes as well if they hadn't incorporated some industrial influences into their sound?

Do you see any relationship between Fear Factory being one of the first metal bands to release industrial or techno remixes of some of their songs and their use of science fiction or technology-related themes?

Even without keyboards, metal, like pretty much all music released commercially, is still entirely dependent on technology (from the basic amplification of your instruments to the recording process and the production of the physical product to the digital artwork, the electronic effects, and so on). Do you think Fear Factory's reliance on technology had any effect on how they talked about technology in their lyrics?

How do you feel about your own personal relationship to science and technology (as a producer, as a musician)?

How do you think Fear Factory's exploration of science fiction themes and the relationship between humans and technology compared to your work with Front Line Assembly dealing with similar issues?

Did Fear Factory seem conscious of the relationship between the themes they were addressing and things that were going on around them at the time in society?

How do the ideas expressed on your science fiction-themed albums of the late 1990s translate to 2005? Do those concerns still hold weight now?

Are you a fan of science fiction literature or film?
What do you find interesting about the science fiction genre?
Are there particular books or movies that have inspired or influenced your own work, or the contributions you made to Fear Factory's music?

Interview Guide – Michel Langevin:

Are you a fan of science fiction literature?
Of science fiction film?
What do you find interesting about the science fiction genre?
Are there particular books or movies that have inspired or influenced you to come up with your own science fiction narratives?

What made you decide you wanted to mix science fiction and music?

Voïvod started out with a relatively straightforward metal sound but before too long it started to turn more experimental. Can you briefly comment on what influenced some of the changes in Voïvod's sound?
You were one of the first metal bands to use samplers – what made you turn to digital music technology?
Was there ever a conscious effort to make your music sound as science fiction as your lyrics?

Most of the Voïvod albums have dealt with science fiction themes in some way – what's the fascination for you?

Why write sf lyrics instead of something more reality-based?

The two studio albums with Eric Forrest have a very distinct sound from most of the other Voïvod material. What made you decide to take a more aggressive approach again?

Can you talk about some of the themes you were dealing with on *Negatron*?
Were they influenced by what was going on in the world at the time?

One of the themes I'm particularly interested in is the representation of technology. What was your perspective on technology on *Negatron*?

How would you explain the album's position regarding the future of humanity?

The use of industrial elements in songs dealing with issues related to science and technology creates a stronger relationship between sound and subject matter than is often the case in metal. How much of that relationship is the result of conscious decision, perhaps even to draw more attention to the content of the lyrics?

With *Phobos* you embarked on another science fiction concept album and brought back the Voïvod character, is that correct? Can you explain the nature of that character?

Can you briefly explain the story of *Phobos*?

How do *Phobos*'s views on technology compare to *Negatron*'s?

What does *Phobos* have to say about technology and the future of humanity?

Both albums feature a lot of dark, oppressive sounds, but they seem to express hope as well. Would you agree with that? (Why or why not?)

You have done most of the artwork for Voïvod over the years, is that correct?
How closely does your album artwork for *Negatron* and *Phobos* relate to the ideas you are trying to get across in the songs?
How do you come up with concepts for the artwork?

How heavily have you been involved in the production of your videos?
How closely do your videos relate to the ideas you are trying to get across in the songs?

What relationship is there (if any) between your release of industrial or techno remixes of some of your science fiction or technology-themed songs and their subject matter?

What was going on in the world at the time that may have influenced or inspired your science fiction lyrics? Do you consider your dystopian lyrics to be a warning? A prediction? A call to arms? Simply science fiction (fantasy)? [Were you looking at problems in society at the time that seemed likely to create a future dystopia for ourselves?]

Your music is still grounded in metal, and based on the standard line-up of guitars, bass and drums. Nevertheless, you very much depend on technology to produce your music – from the basic amplification of your instruments to the recording process and the production of the physical product to the digital artwork, the electronic effects, and so on. How do you feel about your own personal relationships to science and technology (particularly as musicians)?

How do the ideas expressed on your science fiction-themed albums of the late 1990s translate to 2005? Do those concerns still hold weight now?

Appendix D: Research Ethics Board Application and Approval

See attachments.

File # 04-426

Brock University Research Ethics Board (REB)

Application for Ethical Review of Research Involving Human Participants

Please refer to the documents "Brock University Research Ethics Guidelines" which can be found at http://www.brocku.ca/researchservices/, prior to completion and submission of this application. If you have questions about or require assistance with the completion of this form, please contact the Research Ethics Officer at (905) 688-5550 ext. 3035, or reb@brocku.ca.

Return your completed application and all accompanying material in triplicate to the Research Ethics Officer in Scotiabank Hall 335. Please ensure all necessary items are attached prior to submission, otherwise your application will not be processed (see checklist below). ***No research with human participants shall commence prior to receiving approval from the research ethics board.***

Original Copy + 2 additional copies of the following DOCUMENTS	**✓ if applicable**
Recruitment Materials	
Letter of invitation	[x]
Verbal script	[ ]
Telephone script	[ ]
Advertisements (newspapers, posters, experimetrix)	[ ]
Electronic correspondence guide	[ ]
Consent Materials	
Consent form	[x]
Assent form for minors	[ ]
Parental/3rd party consent	[ ]
Transcriber confidentiality agreement	[ ]
Data Gathering Instruments	
Questionnaires	[ ]
Interview guides	[x]
Tests	[ ]
Feedback Letter	[x]
Letter of Approval for research from cooperating organizations, school board(s), or other institutions	[ ]
Any previously approved protocol to which you refer	[ ]

SIGNATURES

Principal Investigator:

Please indicate that you have read and fully understand all ethics obligations by checking the box beside each statement.

[x] I have read Section III:8 of Brock University's Faculty Handbook pertaining to Research Ethics and agree to comply with the policies and procedures outlined therein.
[x] I will report any serious adverse events (SAE) to the Research Ethics Board (REB).
[x] Any additions or changes in research procedures after approval has been granted will be submitted to the REB.
[x] I agree to request a renewal of approval for any project continuing beyond the expected date of completion or for more than one year.
[x] I will submit a final report to the Office of Research Services once the research has been completed.
[x] I take full responsibility in ensuring that all other investigators involved in this research follow the protocol as outlined in the application.

Signature _____ Date: _____

Co-Investigators:

Signature _____ Date: _____

Signature _____ Date: _____

Signature _____ Date: _____

Faculty Supervisor:

Please indicate that you have read and fully understand the obligations as faculty supervisor listed below by checking the box beside each statement.

[ ] I agree to provide the proper supervision of this study to ensure that the rights and welfare of all human participants are protected.
[ ] I will ensure a request for renewal of a proposal is submitted if the study continues beyond the expected date of completion or for more than one year.
[ ] I will ensure that a final report is submitted to the Office of Research Services.
[ ] I have read and approved the application and proposal.

Signature _____ Date: _____

SECTION A – GENERAL INFORMATION

1. **Title of the Research Project:** Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal

2. **Investigator Information:**

	Name	**Rank (e.g., faculty, student, visiting professor)**	**Dept./Address**	**Phone No.**	**E-Mail**
Principal Investigator	Laura Taylor	graduate student	CPCF, Brock	519-579-6693	lwiebetaylor@execulink.com
Co-Investigator(s)	n/a	n/a	n/a	n/a	n/a
Faculty Supervisor(s)	Dr. Barry Grant Dr. Nick Baxter-Moore	Faculty Faculty/Program Director	CPCF, SBH 313 CPCF, SBH 318	905-688-5550x3215 905-688-5550x4145	bgrant@brocku.ca nick.baxter-moore@brocku.ca

3. **Proposed Date (dd/mm/yyyy)** (a) of commencement: 05/07/2005 (b) of completion: 30/04/2006

4. **Indicate the location**(s) where the research will be conducted:

Brock University [ ]
Community Site [ ] Specify
School Board [ ] Specify
Hospital [ ] Specify
Other [x] Specify: over telephone or in concert venue, according to participants' convenience; participant permission is the only permission required if interview takes place at concert venue

5. **Other Ethics Approval/Permission:**

(a) Is this a multi-centered study? [ ] **Yes** [x] **No**
(b) Has any other University Research Ethics Board approved this research? [ ] **Yes** [x] **No**

If **YES**, there is no need to provide further details about the protocol **at this time,** provided that **all** of the following information is provided:
Title of the project approved elsewhere:
Name of the Other Institution:
Name of the Other Board:
Date of the Decision:
A contact name and phone number for the other Board:

Please provide a copy of the application to the other institution together with all accompanying materials as well as a copy of the clearance certificate / approval.

If **NO**, will any other Research Ethics Board be asked for approval? [ ] **Yes** [x] **No**
Specify University/College

(d) Has any other person(s) or institutions granted permission to conduct this research? [ ] **Yes** [x] **No**
Specify (e.g.,. school boards, community organizations, proprietors)

6. **Level of the Research:**

[ ] Undergraduate [x] Masters Thesis/Project [ ] Ph.D.
[ ] Post Doctorate [ ] Faculty Research [ ] Administration
[ ] Course Assignment (specify) [ ] Other (specify)

7. **Funding of the Project:**

(a) Is this project currently being funded [ ] **Yes** [x] **No**
(b) If **No**, is funding being sought [ ] **Yes** [x] **No**

If Applicable:
(c) Period of Funding (dd/mm/yyyy): From: n/a To:
(d) Agency or Sponsor (funded or applied for)

[ ] CIHR [ ] NSERC [ ] SSHRC
[ ] Other (specify):

8. **Conflict of Interest:**

(a) Will the researcher(s), members of the research team, and/or their partners or immediate family members:

(i) receive any personal benefits related to this study - for example: a financial

remuneration, patent and ownership, employment, consultancies, board membership, share ownership, stock options (Do not include conference and travel expense coverage, possible academic promotion, or other benefits which are integral to the conduct of research generally). [ ] **Yes** [x] **No**
(ii) if **Yes**, please describe the benefits below.

n/a

(b) Describe any restrictions regarding access to or disclosure of information (during or at the end of the study) that the sponsor has placed on the investigator(s).

n/a

SECTION B – SUMMARY OF THE PROPOSED RESEARCH

9. **Rationale:**

Describe the purpose and background rationale for the proposed project, as well as the hypothesis(es)/research question(s) to be examined.

Several academics have discussed popular entertainment's relationship to the society in which it is produced, and some have debated whether popular genres, such as science fiction, have the potential for offering critical portrayals of contemporary society. This question applies equally to metal music, but in popular music studies, the metal genre and its relationship to other popular art – film and literature – have received relatively little attention. I therefore intend to examine the use of science fiction themes and images from film and literature in metal music of the 1990s and to determine whether the dystopian views of the future and futuristic technology that are relatively common in science fiction metal have the capacity to offer a critique of contemporary society, or whether they are simply revel in pessimism and contradictions. With this research I hope to contribute to our understanding of the relationship between popular art and society.

10. **Methods:**

Are any of the following procedures or methods involved in this study? Check **all** that apply.

[ ] Questionnaire (mail)
[ ] Questionnaire (email/web)
[ ] Questionnaire (in person)
[x] Interview(s) (telephone)
[x] Interview(s) (in person)
[ ] Secondary Data
[ ] Computer-administered tasks
[ ] Focus Groups
[ ] Journals
[ ] Audio/video taping
[ ] Unobtrusive observations
[ ] Invasive physiological measurements (e.g., ventipuncture, muscle biopsies)
[ ] Non-invasive physical measurement (e.g., exercise, heart rate, blood pressure)
[ ] Analysis of human tissue, body fluids, etc.
[ ] Other: (specify)

Describe sequentially, and in detail, all procedures in which the research participants will be involved (e.g., paper and pencil tasks, interviews, questionnaires, physical assessments, physiological tests, time requirements, etc.) ***Attach a copy of all questionnaire(s), interview guides, or other test instruments.***

Each participant will be involved in one in-depth, open-ended interview lasting approximately one hour. The interviews will take place either in person or over the phone, depending upon the interviewee's availability. The interviews will be audio taped to ensure accuracy (not as a method of data collection), unless the participant requests otherwise. Due to time restraints, my unwillingness to impose on the participants' busy schedules, and the fact that the interviews will be audio taped for accuracy, participants will not be asked to review interview transcripts.

11. **Professional Expertise/Qualifications:**

Does this procedure require professional expertise/recognized qualifications? [ ] **Yes** [x] **No**

If **YES**, specify:

Do you, your supervisor, or any members of your research team have the professional expertise/recognized qualifications required? [ ] **Yes** [n/a] **No**

12. **Participants:**

Describe the number of participants and any required demographics characteristics (e.g., age, gender).

The participants will be males, approximately 30 to 45 years old; this is not a requirement, but merely a description of their gender and approximate ages. The participants are public figures, whose identities are already known to the researcher. They are professional musicians, members or former members of the bands Fear Factory and Voivod, or producers and/or studio musicians who worked with these bands in the 1990s. Approximately 8 to 10 participants are expected to take part in this study.

13. **Recruitment:**

Describe how and from what sources the participants will be recruited, including any relationship between the investigator(s), sponsor(s) and participant(s) (e.g., family member, instructor-student; manager-employee).
Attach a copy of any poster(s), advertisement(s) or letter(s) to be used for recruitment.

There is no relationship.
Participants will be sent a letter of invitation – attached as Appendix A. Participation is restricted to members or former members of the bands Fear Factory and Voivod whose identities are already known to the researcher. The participants will be contacted by email, using the contact information available on their band websites, or through their management or record label representatives, whose contact information is also available on the bands' or companies' websites. Once I have made contact with the participants I will initiate the informed consent process.

14. **Compensation:**	**Yes**	**No**
(a) Will participants receive compensation for participation?	[ ]	[x]

(b) If yes, please provide details.

n/a

SECTION C – DESCRIPTION OF THE RISKS AND BENEFITS OF THE PROPOSED RESEARCH

15. **Possible Risks:**

1. Indicate if the participants might experience any of the following risks:

a) Physical risks (including any bodily contact, physical stress, or administration of any substance)? [ ] **Yes** [x] **No**

b) Psychological risks (including feeling demeaned, embarrassed worried or upset, emotional stress)? [ ] **Yes** [x] **No**

c) Social risks (including possible loss of status, privacy, and / or reputation)? [ ] **Yes** [x] **No**

d) Are any possible risks to participants greater than those that the [ ] **Yes** [x] **No**

participants might encounter in their everyday life?

e) Is there any deception involved? [ ] **Yes** [x] **No**

f) Is there potential for participants to feel coerced into contributing to this research (e.g., because of regular contact between them and the researcher)? [ ] **Yes** [x] **No**

2. If you answered **Yes** to any of 1a – 1f above, please explain the risk.

n/a

3. Describe how the risks will be managed (include the availability of appropriate medical or clinical expertise, qualified persons). Give an explanation as to why less risky alternative approaches could not be used.

n/a

16. **Possible Benefits:**

Discuss any potential direct benefits to the participants from their involvement in the project. Comment on the (potential) benefits to the scientific community/society that would justify involvement of participants in this study.

For participants: may broaden community's knowledge of their artistic (musical) work
For community/society: increased understanding of the interaction between popular media (music, film, literature) and the potential for popular genres (science fiction) to be used to offer criticism of society

SECTION D – THE INFORMED CONSENT PROCESS

17. **The Consent Process:**

Describe the process that the investigator(s) will be using to obtain informed consent. Include a description of who will be obtaining the informed consent. If there will be no written consent form, explain why not.

For information about the required elements in the letter of invitation and the consent form, as well as samples, please refer to: http://www.brocku.ca/researchservices/Certification&Polices/Certification&Polices_App_Guidelines.html

If applicable, attach a copy of the Letter of Invitation, the Consent Form, the content of any telephone script and any other material that will be utilized in the informed consent process.

If the interviewees agree to participate after receiving the letter of invitation, they will each be sent a copy of the informed consent form – attached as Appendix B.

18. **Consent by an authorized party:**

If the participants are minors or for other reasons are not competent to consent, describe the proposed alternative source of consent, including any permission form to be provided to the person(s) providing the alternative consent.

n/a

19. **Alternatives to prior individual consent:**

If obtaining individual participant consent prior to commencement of the research project is not appropriate for this research, please explain and provide details for a proposed alternative consent process.

n/a

20. **Feedback to Participants:**

Explain what feedback/ information will be provided to the participants after participation in the project. Include, for example, a more complete description of the purpose of the research, and access to the results of the research. Also, describe the method and timing for delivering the feedback.

All participants will receive a letter of thanks for their participation – attached as Appendix D. Also, if the participant(s) so request, a copy of the final thesis paper will be made available to him/them. Participants may also request to be informed of the paper's publication or public presentation.

21. **Participant withdrawal:**

a) Describe how the participants will be informed of their right to withdraw from the project. Outline the procedures that will be followed to allow the participants to exercise this right.

The participants will be informed of their right to withdraw in the letter of invitation and consent form. The participants may withdraw at any time during the interview by expressing a desire to do so, or they may withdraw after the interview immediately upon written request. The option to withdraw will only be available until December 31, 2005, to ensure the researcher is able to complete the requirements of the MA thesis.

b) Indicate what will be done with the participant's data and any consequences that withdrawal might have on the participant, including any effect that withdrawal may have on participant compensation.

There will be no consequences to withdrawing. Upon withdrawal, any data from the interview will be disposed of (erased) upon the particpant's request.

SECTION E – CONFIDENTIALITY & ANONYMITY

Confidentiality: information revealed by participants that holds the expectation of privacy (this means that all data collected will not be shared with anyone except the researchers listed on this application).

Anonymity: information revealed by participants will not have any distinctive character or recognition factor, such that information can be matched to individual participants (any information collected using audio-taping, video recording, or interview cannot be considered anonymous).

22. Given the definitions above,

a) Will the data be treated as confidential? [ ] **Yes** [x] **No**

b) Are the data anonymous? [ ] **Yes** [x] **No**

c) State who will have access to the data.

researcher and faculty supervisors

(d) Describe the procedures to be used to ensure anonymity of participants and/or confidentiality of data both during the conduct of the research and in the release of its findings.

If the participant explicitly requests confidentiality for any piece of information, that information will not be reproduced in the thesis.

e) If participant anonymity and/or confidentiality is not appropriate to this research project, explain, providing details, how all participants will be advised that data will not be anonymous or confidential.

It is crucial to this study that the musicians be identified and their specific musical works be referred to explicitly. Participants will be advised of this through the letter of invitation and consent form. As professionals working in the music industry, the participants frequently take part in non-confidential interviews with the press, and for the purpose of this study I am not interested in personal information or interpersonal dynamics, but rather data related to the writing and recording of specific albums.

f) Explain how written records, video/audio tapes, and questionnaires will be secured, and provide details of their final disposal or storage (including for how long they will be secured and the disposal method to be used).

The records will be secured in my home office and will be disposed of upon the completion and defense of this thesis.

SECTION F -- SECONDARY USE OF DATA

23. a) Is it your intention to reanalyze the data for purposes other than described in this application? [ ] **Yes** [x] **No**

b) Is it your intention to allow the study and data to be reanalyzed by colleagues, students, or other researchers outside of the original research purposes? If this is the case, explain how you will allow your participants the opportunity to choose to participate in a study where their data would be distributed to others (state how you will contact participants to obtain their re-consent)

There are no such plans at this time, but if the data become relevant to other studies during the course of this project the participants will be contacted with a new letter of invitation and consent form to allow their interview data to be used for the new study.

c) If there are no plans to reanalyze the data for secondary purposes and yet, you wish to keep the data indefinitely, please explain why.

n/a

SECTION G -- MONITORING ONGOING RESEARCH

24. **Annual Review and Serious Adverse Events (SAE):**

a) Minimum review requires the completion of a "Renewal/Project Completed" form at least annually. Indicate whether any additional monitoring or review would be appropriate for this project.

It is the investigator's responsibility to notify the REB using the "Renewal/Project Completed" form, when the project is completed, or if it is cancelled. *http://www.brocku.ca/researchservices/Forms/Forms.html*

Additional monitoring/review not required.

***Serious adverse events** (unanticipated negative consequences or results affecting participants) **must be reported** to the Research Ethics Officer and the REB Chair, **as soon as possible** and in any event, no more than 3 days subsequent to their occurrence.

25. **COMMENTS**

If you experience any problems or have any questions about the Ethics Review Process at Brock University, please feel free to contact the Research Ethics Office at (905) 688-5550 ext 3035, or reb@brocku.ca

Brock University
500 Glenridge Avenue
St. Catharines, ON L2S 3A1
905-688-5550

5 July 2005

LETTER OF INVITATION

Title of Study: Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal

Principal Investigator: Laura Taylor, Graduate Student, Interdisciplinary MA in Popular Culture, Brock University

Faculty Supervisors: Dr. Barry K. Grant, Professor, Department of Communication, Film, and Popular Culture, Brock University
Dr. Nick Baxter-Moore, Director, Interdisciplinary MA in Popular Culture, Brock University

I, Laura Taylor, Graduate Student, Interdisciplinary MA in Popular Culture, Brock University, invite you to participate in a research project entitled Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal. This study has been reviewed and received ethics clearance through Brock University's Research Ethics Board [file # 04-426].

The purpose of this research project is to examine the potential for social criticism in metal music through the use of themes, images and narrative from science fiction film and literature.

Your participation would involve one interview to last approximately one hour and to take place either in person or over the telephone, depending on your schedule and availability.

This research will benefit popular music studies by providing insight into the capacity for critiques of society in popular genres, and into the relationship between popular music, film and literature. In addition, this particular study may introduce [Fear Factory's/Voivod's] work to individuals who would not otherwise have been acquainted with it.

Because of the nature of this study, which focuses on works by [Fear Factory/Voivod] as exemplifying the use of science fiction in metal, particularly in the 1990s, your information will not be kept anonymous or confidential, except at your explicit request. Should you wish to withdraw your participation at any time during the course of this study you may do so during the interview, or in writing after the interview, and any data obtained from the interview will be destroyed or erased. You may also request to be informed of the paper's publication or public presentation, and if you wish a copy of the final paper will be made available to you.

This research is taking place exclusively through Brock University.

If you have any pertinent questions about your rights as a research participant, please contact the Brock University Research Ethics Officer (905 688-5550 ext 3035, reb@brocku.ca).

If you have any questions about this project or your potential involvement, please feel free to contact me.

Thank you,

Laura Taylor
Graduate Student
519-579-6693
lwiebetaylor@execulink.com

Dr. B.K. Grant
Professor, CPCF
906-688-5550 ext. 3215
bgrant@brocku.ca

Dr. Nick Baxter-Moore
Director, Graduate Program in Popular Culture
905-688-5550 ext. 4145
nick.baxter-moore@brocku.ca

Brock University
500 Glenridge Avenue
St. Catharines, ON L2S 3A1
905-688-5550

5 July 2005

INFORMED CONSENT LETTER

Title of Study: Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal

Principal Investigator: Laura Taylor, Graduate Student, Dept. of Communication, Film, and Popular Culture, Brock

Faculty Supervisor: Dr. Barry K. Grant, Professor, Dept. of Communication, Film, and Popular Culture, Brock
Dr. Nick Baxter-Moore, Director, Graduate Program in Popular Culture, Brock

Name of Participant (please print): _____

- I understand that this study involves research, and that I am being invited to participate.
- I understand that the purpose of this study is to examine the potential for social criticism in metal music through the use of themes, images and narrative from science fiction film and literature.
- I understand that the expected duration of my participation in this study is one interview, lasting approximately one hour.
- I understand the procedures to be followed, which include: participating in an audio-taped interview either in person or over the telephone. I also understand that I have the right to refuse the taping of the interview.
- I understand that there are no foreseeable risks associated with this research, and that there are no benefits to me beyond the possibility for a greater public awareness of my artistic work.
- I understand that the data obtained during my interview, including my identity and discussion of my creative work, will be used in the formulation of an academic paper specifically relating to my music, and therefore the data will not be kept confidential unless I so request.
- I understand that if I request confidentiality only the Principal Investigator & the Faculty Supervisor will have access to my data, and that all information will be stored securely in the Principal Investigator's home office until the completion and defense of this project before a committee.
- I understand that participation is voluntary; refusal to participate will involve no penalty, and I may discontinue participation without penalty at any time during or following the interview until and including December 31, 2005.
- I understand that the results of this study may be published in an academic journal or presented at an academic conference and that, should I request it, I will be informed via letter or email of publication and a copy of the finished paper will be made available to me.
- I understand that if I have any pertinent questions about my rights as a research participant, I can contact the Brock University Research Ethics Officer (905 688-5550 ext. 3035, reb@brocku.ca).

*I*_____,

1. *Have read and understood the relevant information regarding this research project*
2. *Understand that I may ask questions in the future*
3. *Indicate free consent to research participation by signing this research consent form*

Participant's Signature: _____

I have explained this study to the participant.

Researcher's Signature: _____

Laura Taylor
Graduate Student
519-579-6693
lwiebetaylor@execulink.com

Dr. B.K. Grant
Professor, CPCF
906-688-5550 ext. 3215
bgrant@brocku.ca

Dr. Nick Baxter-Moore
Director, Graduate Program in Popular Culture
905-688-5550 ext. 4145
nick.baxter-moore@brocku.ca

This study has been reviewed and received ethics clearance through Brock University's Research Ethics Board [file # 04-426]

Please ensure you keep a copy of all informed consent materials for your own records.

REB file # 04-426 **L Taylor**

Interview Guide – General

Why have you incorporated science fiction themes into your music?

Why create an album long science fiction narrative rather than individual songs with science fiction themes?

Are you a fan of science fiction literature?
Of science fiction film?
What do you find interesting about the science fiction genre?
Are there particular books or movies that have inspired or influenced you to come up with your own science fiction narratives?

Do you see your music as a soundtrack to the story?

How closely do your videos relate to the ideas you are trying to get across in the songs? How heavily have you been involved in the production of your videos? If involved, how do you come up with video concepts?

How closely does your album artwork relate to the ideas you are trying to get across in the songs? How heavily have you been involved in the production of the album art? If involved, how do you come up with concepts for the artwork?

What was going on in the world at the time that may have influenced or inspired your science fiction lyrics? Do you consider your dystopian lyrics to be a warning? A prediction? A call to arms? Simply science fiction (fantasy)? [Were you looking at problems in society at the time that seemed likely to create a future dystopia for ourselves?]

The use of industrial elements in songs dealing with issues related to science and technology creates a stronger relationship between sound and subject matter than is often the case in metal. How much of that relationship is the result of conscious decision, perhaps even to draw more attention to the content of the lyrics?

The use of electric guitars in industrial music achieved acceptability well before programming and sampling achieved the same degree of acceptability in metal. Do you think you would have been able to address human/technology relationships and science fiction themes as well (or at all) if you hadn't incorporated some industrial influences into your sound?

What relationship is there (if any) between your release of industrial or techno remixes of some of your science fiction or technology-themed songs and their subject matter?

Your music is still grounded in metal, and based on the standard line-up of guitars, bass and drums. Nevertheless, you very much depend on technology to produce your music – from the basic amplification of your instruments to the recording process and the production of the physical product to the digital artwork, the electronic effects, and so on. How do you feel about your own personal relationships to science and technology (particularly as musicians)?

How do the ideas expressed on your science fiction-themed albums of the late 1990s translate to 2005? Do those concerns still hold weight now?

Brock University
500 Glenridge Avenue
St. Catharines, ON L2S 3A1
905-688-5550

5 July 2005

FOLLOW-UP LETTER

Title of Study: Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal

Principal Investigator: Laura Taylor, Graduate Student, Department of Communication, Film, and Popular Culture, Brock University

Faculty Supervisors: Dr. Barry K. Grant, Professor, Department of Communication, Film, and Popular Culture, Brock University
Dr. Nick Baxter-Moore, Director, Interdisciplinary MA in Popular Culture, Brock University

I would like to thank you very much for your participation in my research project entitled Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal.

My interview with you greatly contributed to my research, and I appreciate the time you invested and your willingness to help.

If you have any further questions about this project or your involvement, please feel free to contact me.

Thank you,

Laura Taylor
Graduate Student
519-579-6693
lwiebetaylor@execulink.com

This study has been reviewed and received ethics clearance through Brock University's Research Ethics Board [file # 04-426]

To: lwiebetaylor@execulink.com ...snip... nick.baxter-moore@brocku.ca
From: Research Ethics Board <reb@brocku.ca>
Subject: REB 04-426 TAYLOR - Approved
Cc: mowen@brocku.ca, linda rose-krasnor <rebchair@brocku.ca>

DATE: **July 22, 2005**

FROM: Linda Rose-Krasnor, Chair
Research Ethics Board (REB)

TO: Barry Grant, Communication, Popular Culture and Film
Laura TAYLOR

FILE: **04-426 TAYLOR**

TITLE: **Metal Music as Critical Dystopia?: Humans, Technology and the Future in 1990s Science Fiction Metal**

The Brock University Research Ethics Board has reviewed the above research proposal.

DECISION: Accepted as clarified.

This project has received ethics clearance for the period of July 22, 2005 to April 30, 2006 subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The clearance may be extended upon request. ***The study may now proceed.***

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and approved by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written approval from the REB. The Board must approve any modifications before they can be implemented. If you wish to modify your research project, please refer to http://www.brocku.ca/researchservices/forms to complete the appropriate form **Revision or Modification to an Ongoing Application.**

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and approvals of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council. Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form ***Continuing Review/Final Report*** is required.

Please quote your REB file number on all future correspondence.

Office of Research Ethics
Brock University
Office of Research Services
500 Glenridge Avenue
St. Catharines, Ontario, Canada L2S 3A1
phone: (905)688-5550, ext. 3035 fax: (905)688-0748
email: reb@brocku.ca
http://www.brocku.ca/researchservices/ethics/humanethics/

 clip_image0011.gif